

**NJ Division of Fish and Wildlife
Endangered and Nongame Species Program**

**Species Status Review of Lepidoptera (Butterflies):
Final Report**

Report Presented to the
NJ Endangered and Nongame Species Advisory Committee on January 21, 2015
With Recommendations for Action

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Executive Summary

- Project Manager for this status review was Melanie Mason, Endangered and Nongame Species Program.
- The statuses of 51 butterfly species were reviewed using the Delphi Technique. Due to the considerable number of resident butterfly species in NJ, the original 46 species on the list under assessment were derived from a variety of sources and presented to ENSAC where they were approved at the November 2013 meeting. Sources used to assemble the species list included one or more of the following: regional SGCN lists, NatureServe “S Ranks” and “G Ranks” and current listing statuses in NJ and in neighboring regions, as well as consultations with experts in the field of NJ butterfly distribution and life histories. The remaining 5 species were added following Round one’s call for species additions by panelists.
- Seven reviewers participated during the entire assessment. Eight reviewers were originally solicited for the panel, but one dropped out before completing the first round. Reviewers included experts from the Division of Fish & Wildlife (Endangered and Nongame Species Program [ENSP]), Stockton College, The Nature Conservancy, Philadelphia Academy of Sciences, and private consultants with butterfly expertise.
- Reviewers were provided information pertaining to the species under review. Distributed materials included: New Jersey distributions maps (pre-1970 to current) by ENSP for species for which there was locational data in the Biotics database, NatureServe distribution data (G and S ranks), federal listing and nearby states’ listings (if applicable), IUCN Red List status, Xerces Red List status and ENSP-endorsed survey data, as well as survey data from panelists. Information was sent electronically to each panelist via email with care taken to protect the identities of the panelists.
- Round 1 began on January 13, 2014, and Round 4, the final round, was completed on November 17, 2014. Initial results information is presented in tables 1 and 2.
- 85% (six out of seven) consensus was achieved on 39 of 51 species and 83% (five out of six) consensus was achieved on one species (Table 3).
 - Seven species were voted Secure/Stable.
 - Eight species were voted Special Concern.
 - Four species were voted Threatened.
 - Five species were voted Endangered.
 - Fifteen species were determined to be Not Applicable.
 - Twelve species remained unresolved after four rounds.
- ENSP biologists reviewed all results and made status recommendations as presented in tables 4 and 5 (and Appendix I) prior to the ENSAC review. The ENSAC considered tables 3, 4 and 5, the reviewers’ comments, and ENSP comments, at their January 2015 meeting.
- The ENSAC made status recommendations as presented in Table 6. Their recommendations were recorded in the final minutes of their January 21, 2015 meeting.

Table 1. Overall Species Status Changes.

Change Summary	
New Species Added to List	8
Species Removed/Delisted	3
Species Uplisted (e.g. SC to E)	5
Species Downlisted (e.g. E to SC)	0
No Consensus	12
Species Assessed but not listed	19
No change	4
Total	51

Table 2. Consensus Per Round

Round Summary	
Round #	# Consensus
1	1
2	26
3	4
4	8
No Consensus	12
Total Species	51

Results after 4 rounds, Butterflies (Order Lepidoptera):

Table 3. Scientific and common names of all assessed species, their previous status in NJ (if any), their status change (if any), and round consensus was reached (if any). Species that did not reach an 85% (or 83% in one case) consensus are blank in the “Consensus Reached Round #” column as well as indicated “No Consensus” under consensus status.

Scientific Name	Common Name	Current NJ Status	Consensus Reached Round #	Consensus Status
<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper	Undetermined		No Consensus
<i>Amblyscirtes vialis</i>	Common Roadside Skipper	Undetermined		No Consensus
<i>Anthocharis midea</i>	Falcate Orangetip	Undetermined	3	Stable/Secure
<i>Atlides halesus</i>	Great Purple Hairstreak	Undetermined	2	Not Applicable
<i>Atrytone arogos</i>	Arogos Skipper	Endangered	1	Endangered
<i>Atrytonopsis hiana</i>	Dusted Skipper	Undetermined	4	Special Concern
<i>Autochton cellus</i>	Golden Banded Skipper	Undetermined	2	Not Applicable
<i>Boloria selene</i>	Silver-bordered Fritillary	Threatened	2	Endangered
<i>Calephelis borealis</i>	Northern Metalmark	Special Concern	2	Endangered
<i>Callophrys hesseli</i>	Hessel's Hairstreak	Special Concern	4	Special Concern
<i>Callophrys irus</i>	Frosted Elfin	Threatened	2	Threatened
<i>Callophrys polios</i>	Hoary Elfin	Special Concern	4	Threatened
<i>Carterocephalus palaemon</i>	Arctic Skipper	Undetermined	3	Not Applicable
<i>Celastrina neglectamajor</i>	Appalachian Azure	Undetermined		No Consensus
<i>Chlosyne harrisii</i>	Harris' Checkerspot	Special Concern	2	Not Applicable
<i>Chlosyne nycteis</i>	Silvery Checkerspot	Undetermined	2	Not Applicable
<i>Danaus plexippus</i>	Monarch	Undetermined	2	Special Concern
<i>Eroria laeta</i>	Early Hairstreak	Undetermined	2	Not Applicable
<i>Erynnis brizo</i>	Sleepy Duskywing	Undetermined	4	Special Concern
<i>Erynnis lucilius</i>	Columbine Duskywing	Undetermined	2	Not Applicable
<i>Erynnis martialis</i>	Mottled Duskywing	Undetermined	2	Not Applicable
<i>Erynnis persius</i>	Persius Duskywing	Undetermined	2	Not Applicable
<i>Euphydryas phaeton</i>	Baltimore Checkerspot	Undetermined	2	Special Concern
<i>Euphyes bimacula</i>	Two-spotted Skipper	Special Concern	4	Threatened
<i>Euphyes dion</i>	Dion Skipper	Undetermined	2	Stable/Secure
<i>Fenisica tarquinius</i>	Harvester	Undetermined	4	Stable/Secure
<i>Hesperia attalus</i>	Dotted Skipper	Special Concern		No Consensus
<i>Hesperia leonardus</i>	Leonard's Skipper	Special Concern		No Consensus
<i>Lycaena epixanthe</i>	Bog Copper	Undetermined	2	Stable/Secure
<i>Lycaena hyllus</i>	Bronze Copper	Endangered	2	Endangered
<i>Neonympha helicta</i>	Georgia (Helicta) Satyr	Special Concern	3	Threatened
<i>Neonympha m. mitchellii</i>	Mitchell's Satyr	Endangered	2	Not Applicable

Scientific Name	Common Name	Current NJ Status	Consensus Reached Round #	Consensus Status
<i>Nymphalis milberti</i>	Milbert's Tortoiseshell	Undetermined	4	Not Applicable
<i>Nymphalis vaualbum</i>	Compton Tortoiseshell	Undetermined	2	Special Concern
<i>Papilio cresphontes</i>	Giant Swallowtail	Undetermined	3	Stable/Secure
<i>Parrhasius m-album</i>	White-M Hairstreak	Undetermined	2	Secure/Stable
<i>Pieris oleracea</i>	Mustard (Eastern veined) White	Undetermined	2	Not Applicable
<i>Pieris virginensis</i>	West Virginia White	Undetermined	2	Not Applicable
<i>Polygonia progne</i>	Gray Comma	Undetermined		No Consensus
<i>Pontia protodice</i>	Checkered White	Threatened		No Consensus
<i>Problema bulenta</i>	Rare Skipper	Undetermined		No Consensus
<i>Pyrgus centaureae wyandot</i>	Appalachian Grizzled Skipper	Endangered	2	Not Applicable
<i>Satyrium acadica</i>	Acadian Hairstreak	Undetermined	2	Endangered
<i>Satyrium caryaevorus</i>	Hickory Hairstreak	Undetermined	4	Special Concern
<i>Satyrium edwardsii</i>	Edwards' Hairstreak	Undetermined		No Consensus
<i>Satyrium favonius ontario</i>	Northern Oak Hairstreak	Undetermined		No Consensus
<i>Satyrium titus</i>	Coral Hairstreak	Undetermined		No Consensus
<i>Satyroides eurydice</i>	Eyed Brown	Undetermined	2	Special Concern
<i>Speyeria aphrodite</i>	Aphrodite Fritillary	Undetermined		No Consensus
<i>Speyeria idalia</i>	Regal Fritillary	Undetermined	2	Not Applicable
<i>Staphylus hayhurstii</i>	Hayhurst's Scallopwing	Undetermined	2	Stable/Secure

Table 4. Species for which 85% consensus was not reached, with recommended status proposed by ENSP.

Scientific Name	Common Name	Previous Status	Delphi Panelists' Votes						ENSP Recommended Status
			E	T	SC	S	U	NA	
<i>Celastrina neglectamajor</i>	Appalachian Azure	Undetermined				3	3		Undetermined-Unknown
<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper	Undetermined	2	4	1				Threatened
<i>Amblyscirtes vialis</i>	Common Roadside Skipper	Undetermined	1	5	1				Threatened
<i>Hesperia attalus</i>	Dotted Skipper	Special Concern	1	5	1				Threatened
<i>Hesperia leonardus</i>	Leonard's Skipper	Special Concern	2	5					Threatened
<i>Polygonia progne</i>	Gray Comma	Undetermined		5	1		1		Threatened
<i>Pontia protodice</i>	Checkered White	Threatened		1			2	4	Special Concern
<i>Problema bulenta</i>	Rare Skipper	Undetermined			2	5			Special Concern
<i>Satyrium edwardsii</i>	Edwards' Hairstreak	Undetermined			2	5			Secure-Stable
<i>Satyrium favonius ontario</i>	Northern Oak Hairstreak	Undetermined			5	2			Special Concern
<i>Satyrium titus</i>	Coral Hairstreak	Undetermined			2	5			Secure-Stable
<i>Speyeria aphrodite</i>	Aphrodite Fritillary	Undetermined					4	2	Undetermined-Unknown

Table 5. Species for which consensus was reached for a status that differs from the ENSP recommendation.

Scientific Name	Common Name	Previous Status	Delphi Consensus Status	ENSP Recommended Status
<i>Chlosyne harrisii</i>	Harris' Checkerspot	Special Concern	NA	Special Concern
<i>Neonympha m. mitchellii</i>	Mitchell's Satyr	Endangered	NA	Endangered
<i>Pyrgus centaureae wyandot</i>	Appalachian Grizzled Skipper	Endangered	NA	Endangered
<i>Carterocephalus palaemon*</i>	Arctic Skipper	Undetermined	NA	Undetermined-Unknown*
<i>Chlosyne nycteis*</i>	Silvery Checkerspot	Undetermined	NA	Undetermined-Unknown*
<i>Erynnis lucilius*</i>	Columbine Duskywing	Undetermined	NA	Undetermined-Unknown*

* ENSP suggest that the conservative approach is to maintain these species as "Undetermined-Unknown" rather than NA (Not Applicable/not found in the State) due to the potential for extant habitat and/or recolonization, based on the Delphi panelists' comments.

Table 6. Summary table used for the ENSAC review, organized by ENSP Recommended Status, and including the ENSAC recommended adoptions.

Scientific Name	Common Name	Current Status	Delphi Consensus	ENSP Recommended Status	ENSAC Recommendation (adopted at 1/21/2015 meeting)
<i>Boloria selene</i>	Silver-bordered Fritillary	T	E	E	E
<i>Calephelis borealis</i>	Northern Metalmark	SC	E	E	E
<i>Lycaena hyllus</i>	Bronze Copper	E	E	E	E
<i>Atrytone arogos</i>	Arogos Skipper	E	E	E	E
<i>Neonympha m. mitchellii</i>	Mitchell's Satyr	E	NA	E	E
<i>Pyrgus centaureae wyandot</i>	Appalachian Grizzled Skipper	E	NA	E	E
<i>Satyrrium acadica</i>	Acadian Hairstreak	U	E	E	E
<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper	U	none	T	T
<i>Amblyscirtes vialis</i>	Common Roadside Skipper	U	none	T	T
<i>Callophrys irus</i>	Frosted Elfin	T	T	T	T
<i>Callophrys polios</i>	Hoary Elfin	SC	T	T	T
<i>Euphyes bimacula</i>	Two-spotted Skipper	SC	T	T	T
<i>Hesperia attalus</i>	Dotted Skipper	SC	none	T	T
<i>Hesperia leonardus</i>	Leonard's Skipper	SC	none	T	T
<i>Neonympha helicta</i>	Georgia (Helicta) Satyr	SC	T	T	T
<i>Polygonia progne</i>	Gray Comma	U	none	T	T
<i>Atrytonopsis hiana</i>	Dusted Skipper	U	SC	SC	SC
<i>Callophrys hesseli</i>	Hessel's Hairstreak	SC	SC	SC	SC
<i>Chlosyne harrisii</i>	Harris' Checkerspot	SC	NA	SC	SC
<i>Danaus plexippus</i>	Monarch	U	SC	SC	SC
<i>Erynnis brizo</i>	Sleepy Duskywing	U	SC	SC	SC
<i>Euphydryas phaeton</i>	Baltimore Checkerspot	U	SC	SC	SC
<i>Nymphalis vaualbum</i>	Compton Tortoiseshell	U	SC	SC	SC
<i>Pontia protodice</i>	Checkered White	T	none	SC	T
<i>Problema bulenta</i>	Rare Skipper	U	none	SC	SC
<i>Satyrrium caryaevorus</i>	Hickory Hairstreak	U	SC	SC	SC

Scientific Name	Common Name	Current Status	Delphi Consensus	ENSP Recommended Status	ENSAC Recommendation (adopted at 1/21/2015 meeting)
<i>Satyrium favonius ontario</i>	Northern Oak Hairstreak	U	none	SC	SC
<i>Satyroides eurydice</i>	Eyed Brown	U	SC	SC	SC
<i>Anthocharis midea</i>	Falcate Orangetip	U	S	S	S
<i>Euphyes dion</i>	Dion Skipper	U	S	S	S
<i>Fenisica tarquinius</i>	Harvester	U	S	S	S
<i>Lycaena epixanthe</i>	Bog Copper	U	S	S	S
<i>Papilio cresphontes</i>	Giant Swallowtail	U	S	S	S
<i>Parrhasius m-album</i>	White-M Hairstreak	U	S	S	S
<i>Satyrium edwardsii</i>	Edwards' Hairstreak	U	none	S	S
<i>Satyrium titus</i>	Coral Hairstreak	U	none	S	S
<i>Staphylus hayhurstii</i>	Hayhurst's Scallopwing	U	S	S	S
<i>Carterocephalus palaemon</i>	Arctic Skipper	U	NA	U	U
<i>Celastrina neglectamajor</i>	Appalachian Azure	U	none	U	U
<i>Chlosyne nycteis</i>	Silvery Checkerspot	U	NA	U	U
<i>Erynnis lucilius</i>	Columbine Duskywing	U	NA	U	U
<i>Speyeria aphrodite</i>	Aphrodite Fritillary	U	none	U	U
<i>Atlides halesus</i>	Great Purple Hairstreak	U	NA	NA	NA
<i>Autochton cellus</i>	Golden Banded Skipper	U	NA	NA	NA
<i>Erora laeta</i>	Early Hairstreak	U	NA	NA	NA
<i>Erynnis martialis</i>	Mottled Duskywing	U	NA	NA	NA
<i>Erynnis persius</i>	Persius Duskywing	U	NA	NA	NA
<i>Nymphalis milberti</i>	Milbert's Tortoiseshell	U	NA	NA	NA
<i>Pieris oleracea</i>	Mustard (Eastern veined) White	U	NA	NA	NA
<i>Pieris virginiensis</i>	West Virginia White	U	NA	NA	NA
<i>Speyeria idalia</i>	Regal Fritillary	U	NA	NA	NA

Appendix I. Summary of Delphi Comments with Justifications for ENSP Recommendations:

Appalachian Azure: 3 Secure, 3 Unknown, 1 No Opinion. Secure argue that host plant is abundant and no real sign of decline or hard to ID so can't say for sure it's declining. U comments cite lack of info to assign any status (multitude of apparent sightings may be wrong), S or otherwise.

ENSP Recommendation: Unknown

The Azure complex of species is a problematic group of species to work with due to identification and taxonomic uncertainties related to how the species and sub-species should be classified. The panel was unable to come to consensus on the status of this species in NJ and the ENSP will recommend this species to be listed as having an unknown status until more data are available.

Pepper and Salt Skipper: 2 Endangered, 4 Threatened, 1 Special Concern. 'E' argue that High Point colony is resident and stable, food source not threatened but species is indirect beneficiary of reduced mowing; E status would provide needed recognition for proper mgt. 'T' argues only one strong colony and could be subject to mismanagement, restricted in NJ. 'SC' argues that no specific threat is identified so hard to justify a listing higher than SC (can't take immediate action), it is scarce and on the edge of range so may even be NA.

ENSP Recommendation: Threatened

There is consensus to list (as E or T) this species from the Delphi review and ENSP recommends listing this species as Threatened based on the majority voting.

Common Roadside Skipper: 1 Endangered, 5 Threatened, 1 Special Concern. 'E' doesn't want to compromise on a disappearing species, don't know cause for decline and cannot develop "clear plan of action" but can only draw attention to it, something an E status could possibly do. 'T' argue that numbers are small, sporadic occurrences, moving to middle to try to compromise (at least 3 votes from E), habitat loss, not understood enough, state should protect. SC-reduced indigenous species but unknown threats, they form short-lived colonies and permanent which may explain "historic populations now lost," shouldn't list higher than SC until a plan of action can be developed.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the majority voting.

Dotted Skipper: 1 Endangered, 5 Threatened, 1 Special Concern. 'E' argues drastic range reduction, difficult or inconsistent finding them in remaining areas. 'T' argues only one reliable location with small numbers, uncommon and local but cannot ID reason for decline (habitat appears intact), hard to find, moving to middle to reach consensus. SC argues that small pop size is not enough evidence for imminent disappearance for a mobile butterfly that feeds on common plants but may be at risk due to poor land management.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the fact that the majority voting.

Leonard's Skipper: 2 Endangered, 5 Threatened. 'E' argues historic populations extirpated or declining significantly. 'T' argue sporadic sightings, habitat appears to be intact (despite decline in numbers), colonies persist despite low numbers, can't ID a specific threat, many moved from E to attempt to reach consensus.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the majority vote.

Mitchell's Satyr: This species reached a NA consensus during round 2 for the reason that it appears to be extirpated from NJ. However, this species is listed as Federally Endangered, which automatically gives it State endangered status.

ENSP recommendation: Endangered.

Gray Comma: 5 Threatened, 1 Special Concern, 1 Unknown. Threatened argues used to be more widespread, rarely reported, new colony may not be stable or should be listed and moving towards middle. SC argues not enough data to suggest T due to unsteady presence in state.

ENSP Recommendation: Threatened

The majority of the panelists (5 out of 7) were in favor of a Threatened status and 6 out of 7 recommended listing this species. ENSP recommends a Threatened status for this species.

Checkered White: 1 Threatened, 2 Unknown, 4 Not Applicable. Divided as to whether it is resident, etc.

ENSP Recommendation: Special Concern

This species generated a great deal of discussion and different opinions within the panel. It has been a resident species for some time with extensive historic records and a persistent population at the Newark Airport (a point of disagreement among some panelists). The establishment, eruption, and subsequent decline of a large population in southern New Jersey from 2011 through 2014 shows that this species is able to colonize and fully occupy suitable habitat when it becomes available. This also shows the complexity of dealing with eruptive species that utilize highly disturbed habitats (preferred habitats including landfills, airports, roadsides, fallow fields, etc.). Due to the species' current Threatened status and that this species is highly restricted within NJ after years of extensive declines, the ENSP recommends this species be categorized as Special Concern.

Rare Skipper: 2 Special Concern, 5 Secure. SC argue population estimates it may not be stable due to anecdotal nature of population studies, sea level rise may be a threat, G2 status in NJ and rarity around NJ justifies listing despite possible security within state. Secure argue moving towards consensus, locally common, stable in NJ despite declines elsewhere, threats outlined are not imminent.

ENSP Recommendation: Special Concern

The majority (5 of 7) of the panelists voted for this species to be listed as apparently secure.

The arguments for listing versus not listing were divided along the lines of the species' status in NJ versus range-wide. Within NJ, this species is reasonably secure and can generally be found in suitable habitat. The ENSP recommends that this species be listed as Special Concern due to the regional concern for this species and NJ's role in maintaining it.

Edwards' Hairstreak: 2 Special Concern, 5 Secure.

ENSP Recommendation: Secure-Stable

The majority (5 of 7) of the panelists voted for this species to be listed as apparently secure and the ENSP recommends it be listed as such until additional data are available to list otherwise.

Northern Oak Hairstreak: 5 Special Concern, 2 Secure. Some SC want higher ranks, secure votes argue that it is hard to ID so doesn't warrant listing.

ENSP Recommendation: Special Concern

The majority (5 of 7) of the panelists voted for this species to be listed as Special Concern and ENSP will recommend it be listed as Special Concern. By definition Special Concern species can include any species that warrants special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state

Coral Hairstreak: 2 Special Concern, 5 Secure. No one wants to give.

ENSP Recommendation: Secure-Stable

The majority (5 of 7) of the panelists voted for this species to be listed as apparently secure and the ENSP recommends it be listed as such until additional data are available.

Aphrodite Fritillary: 4 Unknown, 2 Not Applicable, 1 No Opinion. Most arguments were difficult identifying, or unknown as to permanent residency. Consensus not to list.

ENSP Recommendation: Unknown-Undetermined

The panel could not reach consensus on the status of this species in NJ and opinions leaned towards an unknown status in NJ. ENSP recommends this species to be listed as having an unknown status until additional data are available.

APPENDIX II
RESULTS OF ALL REVIEW ROUNDS

Rounds with Comments for Each Species

*Any species with an asterisk next to its "Proposed Status" indicates 100% consensus. Please note that while Mitchell's Satyr reached consensus for "Not Applicable: Extirpated", ENSP recommends that the current Federal status should be maintained.

SPECIES: Pepper and Salt Skipper (*Amblyscirtes hegon*)

NO Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	2	0	2	1	0	2	0	6.2
Round 2	2	0	4	0	1	0	0	Not Calc
Round 3	2	1	4	0	0	0	0	6.29
Round 4	2	4	1	0	0	0	0	6.14

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	0	2	1	0	2	0	6.2

Justifications:

Endangered	
Individual Certainty	Notes
7	Only two colonies (i.e., sites supporting more than one individual) are known.
5	My understanding is that it is a rare species that has historically been rare in NJ and is potentially declining. My experience is limited with this skipper.
Average Certainty:	
6	

Threatened	NO VOTES
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Special Concern	
Individual Certainty	Notes
7	Secure: Almost no records prior to the 1990s. Rare and very local in NW New Jersey. One reliable colony known, with numbers in most years in varying from a few to the low 20s, but apparently holding steady. A very few also reported from other locations.
5	Rare and local. Only significant population at High Point SP. Not clear if overall population is increasing or decreasing.
Average Certainty:	
6	

Stable/Secure	
Individual Certainty	Notes
7	Apparently Secure. Very localized species in NJ that probably warrants greater attention.
Average Certainty:	
7	

Other	
Individual Certainty	Notes
Not indicated	No Opinion
Not indicated	No Opinion
Average Certainty:	
Not calculated	

Consensus (85%) Reached in Round 1? NO

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	0	4	0	1	0	0	Not Calc

Justifications:

Endangered	% of Votes: 28.6
Individual Certainty	Notes

6 Not very familiar with this species but round 1 comments have convinced me to mark as endangered.

Not Indicated Again, there are only 2 known colonies of this species! One, I believe is in a powerline, and thus highly vulnerable to management activities. And only 3 other sites (all with single individuals) are known, 2 of which have not been reported since the 90s.

Average Certainty: **Not Calculated**

Threatened NO VOTES

Special Concern	% of Votes: 57.1
Individual Certainty	Notes

7 One reliable colony known, with numbers in most years varying from a few to the low 20s, but apparently holding steady. A very few also reported from other locations.

5 Based on comments from other voters, moving vote from No Opinion.

6 Rare and local. Only significant population is at High Point SP but scattered reports elsewhere. Not clear if overall population is increasing or decreasing.

7 Same assessment as per Round 1 comments.

Average Certainty: **6.25**

Stable/Secure NO VOTES

Other % of Votes: 14.3

Individual Certainty	Notes
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4 Unknown: Lack of consensus points to need to determine whether this is a peripheral species or a truly indigenous species that is reduced to a remnant. Certainly two small populations points to E, but is there a specific threat that can be identified and managed? Scarcity alone, at the edge of the range, might make it NA.

Average Certainty: **4**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	1	4	0	0	0	0	6.29

Justifications:

Endangered % of Votes: 28.6

Individual Certainty	Notes
8	What else to say? We know of only two sites that support multiple individuals. Just because one of these populations seems reasonably stable is no reason for complacency. Arctic Skipper has disappeared from this same location. High Point SP has been very receptive to management recommendations, but listing this species could help maintain their awareness—and caution with their mowing regime.
	Round 1 and 2 comments have convinced me to keep as endangered.
6	Panelist voting for threatened: "ONE reliable colony known..." If there's only ONE known colony, shouldn't it be listed as endangered? This makes me vote for E that much more confident.

Average Certainty: 7

Threatened % of Votes: 14.3

Individual Certainty	Notes
8	We have a majority in favor of listing but split. I am in favor of threatened as the middle of the road but I would put it somewhere between SC and T.

Average Certainty: 8

Special Concern % of Votes: 57.1

Individual Certainty	Notes
6	Rare and local. Only significant population is at High Point SP but scattered reports elsewhere. Not clear if overall population is increasing or decreasing.
7	One reliable colony known in northern NJ, with numbers in most years varying from a few to the low 20s, but apparently holding steady. A very few also reported from other locations.
4	I would change to SC with the reservation that lack of consensus points to need to determine whether this is a peripheral species or a truly indigenous species that is reduced to a remnant. Certainly two small populations points to T or E, if there were specific threat that could be identified and managed. Scarcity alone, at the edge of the range, might make it NA.
5	I am keeping my vote as Special Concern, the category that drew 4 of the 7 votes last time. SJBF log has no data for this species, so basing vote mostly on comments of other panelists.

Average Certainty: 5.5

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	4	1	0	0	0	0	6.14

Justifications:

Endangered % of Votes: 28.6

Individual Certainty Notes

- 8 The High Point colony has persisted since at least 1993, which certainly indicates that this species is established as a resident, and so deserves to be listed. Individuals there appear to be highly dependent on roadside Wild Geranium as a nectar source. This resource isn't immediately threatened, and park management has been cooperative in managing this roadside area for butterflies in general, but I believe that listing Pepper and Salt Skipper would be an important additional encouragement for management to continue resisting the universal maintenance imperative for mowing, mowing, and more mowing.
- 6 Sticking with Endangered. Maybe I could switch my vote to Threatened, but nothing lower than that has convinced me otherwise. Any citations?

Average Certainty: 7

Threatened % of Votes: 57.1

Individual Certainty Notes

- 6 With only one strong colony, this species is at least Threatened.
- 6 Moving my vote up to Threatened since even though there are reliably double digit numbers at the High Point SP colony, the site is vulnerable to mismanagement whether accidental or otherwise.
- 5 I am changing my vote to Threatened (from SC) based on comments from several panelists in Round 3.
- 8 Threatened: this species is very restricted in NJ and warrants a threatened status.

Average Certainty: 6.25

Special Concern

% of Votes: 14.3

Individual Certainty Notes

- 4 I hold to SC with the proviso that, if there were specific threat that could be identified and managed, two small populations points to T or E. It's pretty clear that there is not enough information to manage the species. E implies immediate action is required, but how can that be applied when we don't know what to do? Scarcity alone, at the edge of the range, might make it NA.

Average Certainty: 4

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: Referred to ENSAC

SPECIES: Common Roadside Skipper (*Amblyscirtes vialis*)

NO Consensus Reached

Proposed status: Refer to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	2	0	3	1	0	1	0	5.83
Round 2	2	3	2	0	0	0	0	6
Round 3	2	4	1	0	0	0	0	Not Calc
Round 4	1	5	1	0	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	0	3	1	0	1	0	5.83

Justifications:

Endangered

Individual Certainty	Notes
7	Only one consistent colony (of <5 individuals) is known in northern NJ.
7	Rare. Many historic populations have been extirpated. Need to find more populations and known ones should be monitored.

Average Certainty: 7

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
4	Perhaps more common in the past. Rare and very local now. Recently most reliable in suitable habitat on the Kittatinny Ridge in Warren County, but these areas are not well covered because of their more difficult access. Until recently, also at Dennisville in Cape May County, but not observed there since 2010. Other counties with past records are Sussex, Passaic, and Ocean.
5	Most reliable population found in Worthington SF in Warren County. Otherwise sporadic within the state.
5	Based on the little data we have from SJBFLog, this species seems at best a "Species of Special Concern." Gochfeld and Burger note that is rare and sporadic. The log reflects that: we have compiled only 8 reports, all from a single site (the Dennisville Railroad Tracks), 6 of those from a single year (2008), and none in our three most recent years, when we had far more observers participating in our effort. Again, my Confidence Level is low because I do not believe we know this species very well. I will be interested to hear the votes from participants in northern and central NJ. This seems an exceedingly rare resident in the southern half of the state. If others vote for Threatened (based on simple state-wide rarity), I would go along.

Average Certainty: 4.67

Stable/Secure

Individual Certainty	Notes
7	Apparently Secure. Very localized species in NJ.

Average Certainty: 7

Other

Individual Certainty	Notes
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Not indicated No Opinion

Average Certainty: **Not calculated**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	3	2	0	0	0	0	6

Justifications:

Endangered **% of Votes: 28.6**

Individual Certainty	Notes
8	See round 1 comments from panelists.
8	Only 2 reliable colonies known in North Jersey, both on the Kittatinny ridge and both very small (< 5 individuals). And South Jersey status looks grim.

Average Certainty: 8

Threatened **% of Votes: 42.9**

Individual Certainty	Notes
3	Rare and very local. Other than the Kittatinny Ridge site(s?) in Warren County, I know of no recently reliable locations.
6	This seems an exceedingly rare resident in the southern half of the state and based on the notes from other voters from other areas in the state I am changing my vote from Special Concern to Threatened. The SJBFB Project has compiled only 8 reports in six years, all from a single site (the Dennisville RR), 6 of those from a single year (2008), and none in the three most recent years, when far more observers participated in the effort.
7	Same assessment as per Round 1 comments.

Average Certainty: 5.33

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
4	This seems to be a truly indigenous species that is reduced, but the reasons for its rarity remain unclear and there are no threats specified. Not a habitat specialist (Cech and Tudor 2005) but seems like it forms short-lived colonies, as well as more permanent ones, which may account for the "historic populations" now lost. Can any threats be identified and managed? Scarcity and apparent decline seem like a clear case for SC, but lack of consensus could mean it is simply U.
6	Most reliable population found in Worthington SF in Warren County. Otherwise sporadic within the state.

Average Certainty: 5

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	4	1	0	0	0	0	Not Calc

Justifications:

Endangered

% of Votes: 28.6

Individual Certainty	Notes
7	Only 2 tiny North Jersey colonies known, with the only South Jersey colony apparently extirpated. No, we don't know the reasons for its rarity or the specific threats it faces (although one might be fire on the Kittatinny Ridge), but those should not be criteria for listing.
8	All round 1 & 2 comments for endangered AND threatened make me vote for endangered. Historic populations in Camden and Ocean county for SNJ. Extirpated now.

Average Certainty: 7.5

Threatened

% of Votes: 57.1

Individual Certainty	Notes
4	Rare and very local. Two or three very small colonies known along Kittatinny Ridge in Warren County. Scattered reports from southern NJ. Apparently not declining.
6	Population found in Worthington SF in Warren County is very small. Otherwise sporadic within the state.
8	We have consensus to list and threatened is the middle.
Not Indicated	Last Round: 2 for E, 3 for T, 2 for SC. I am keeping my vote at T which seems the compromise vote. Data noted from SJBFB log last Round.

Average Certainty: Not Calculated

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
3	This seems to be a truly indigenous species that is reduced, but the reasons for its rarity remain unclear and there are no threats specified. Habitat varies throughout range, and it forms short-lived colonies, as well as more permanent ones, which may account for the "historic populations" now lost. Before going to T or E, I believe that we have to know specific threats that can be identified and managed. Scarcity and apparent decline are grounds for SC. It doesn't do much good to list a lot of species as T or E, unless a clear plan of action can be developed, and in this case that seems unlikely.

Average Certainty: 3

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
----------------------	-------

7 I cannot go with the "middle" or "compromise" vote for this disappearing species. I reiterate that for most such species we do not know the cause(s) of decline, and at the moment we cannot develop a "clear plan of action" for them except to bring them to a level of attention that might get them studied. An "E" listing might have a chance of doing that.

Average Certainty: 7

Threatened

% of Votes: 71.4

Individual Certainty	Notes
----------------------	-------

6 With only very small numbers in north-western NJ and fewer or even none in the remainder of the state, this species is at least Threatened or possibly Endangered.

6 Population found in Worthington SF in Warren County is very small. Otherwise sporadic within the state.

8 Will lower my vote from Endangered to Threatened to get closer to the 85% consensus, though I still feel it should be E. See previous Round comments.

8 There are always threats to all butterfly species. All ranges, even for common species has been drastically reduced. Habitat loss = threat.

6 Threatened: Keeping my vote for this status. Like two-spotted skipper, this seems to me a little-studied, poorly-understood and vulnerable species that the state should be working to protect. It could soon be too late to learn why it is so rare.

8 Threatened: this species has declined significantly and probably warrants an endangered status.

Average Certainty: 6.8

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
----------------------	-------

3 This seems to be a truly indigenous species that is reduced, but the reasons for its rarity remain unclear and there are no threats specified. Habitat varies throughout range, and it forms short-lived colonies, as well as more permanent ones, which may account for the "historic populations" now lost. Before going to T or E, I believe that we have to know specific threats that can be identified and managed. Scarcity and apparent decline are grounds for SC. It doesn't do much good to list a lot of species as T or E, and it may do harm, unless a clear plan of action can be developed, and in this case that seems unlikely. My guess is that roadside mowing and fire suppression may be major factors, possibly along with ORVs and that trying to protect isolated occurrences is futile.

Average Certainty: 3

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: Referred to ENSAC

SPECIES: Falcate Orangetip

Anthocharis midea

Consensus reached in Round 3

Proposed status: Stable/Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1								
Round 2	0	0	1	5	0	1	0	6.71
Round 3	0	0	1	6	0	0	0	7

Round 1

Species did not undergo first round assessment. Species added in Round 2 as per a panelist's request.

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	5	0	1	0	6.71

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 14.3**

Individual Certainty	Notes
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8 Even though still can be found throughout the state, individual numbers have dropped considerably within the past century. Species prefer successional habitats which are threatened by development. Is not a core Pine Barren species.

Average Certainty: 8

Stable/Secure **% of Votes: 71.4**

Individual Certainty	Notes
----------------------	-------

7 Secure- Doing well in Sussex and Warren Counties, and the South Jersey report for 2013 reported a good showing. It is reasonable to ask whether or not this species really needs to be listed.

6 Apparently Secure- In South Jersey this seems an uncommon but fairly reliable butterfly. Given the short flight period, the SJBFB Log counts seem to indicate "Apparently Secure" (at least on the Coastal Plain). Records/year range from a low of 25 reports to a high of 48; total reports for six years = 210; average reports/year = 35. It is rarely, if ever, numerous, however: individual counts/records are almost always in the single digits. Its status elsewhere in the state may be different.

6 Apparently Secure- Uncommon and local but found in both north and south New Jersey. Numbers appear to be mostly stable.

7 Apparently Secure- Does not seem to be any cause for alarm in North Jersey, where they are well distributed and show no sign of declining numbers.

7 Apparently Secure- relatively common in Assunpink WMA and Old Bridge.

Average Certainty: **6.6**

Other

% of Votes: 14.3

Individual Certainty	Notes
6	No Opinion: Waiting to see what others have to say on this. Looks to be fairly widespread and in moderate numbers.

Average Certainty: **6**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	6	0	0	0	7

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
8	Even though still can be found throughout the state, individual numbers have dropped considerably within the past century. Species prefer successional habitats which are threatened by development. Is NOT a core Pine Barren species.

Average Certainty: **8**

Stable/Secure

% of Votes: 85.7

Individual Certainty	Notes
7	Secure: Doing well at many locations in Sussex and Warren Counties. The southern NJ reports for 2013 suggest no problems there.
7	Secure in North Jersey with many sites reporting multiple individuals annually.
6	Apparently Secure. Uncommon and local but widespread in both northern and southern NJ, very rare in central NJ.
7	This species seems Secure but I would say that it should be monitored more closely.
7	I go along with the view that this is Apparently Secure. Widespread and without any identified threats.
7	Keeping vote Apparently Secure, same as last time, agree with majority: numbers seem stable in north and south.

Average Certainty: **6.8**

Other

NO VOTES

Consensus (85%) Reached in Round 3? **YES**

SPECIES: Great Purple Hairstreak

Atlides halesus

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	1	1	5	6.5
Round 2	0	0	0	0	0	0	7	6.57

Round 1

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	1	1	5	6.5

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Secure **NO VOTES**

Other

Individual Certainty	Notes
6	Not Applicable: <u>Historical</u> : Probably resident in the 19 th century†. No recent records. Fairly common in proper habitat from Delmarva Peninsula south.
6	Not Applicable: <u>Extirpated</u> if ever resident
8	Not Applicable: <u>Extirpated</u> . Uncertain whether ever a resident.
7	Not Applicable: <u>Extirpated</u> .
5	Unknown: Host plant exists as far north as Mullica River
7	NOT Applicable: <u>Historic</u> and probably <u>extirpated</u>
Not indicated	No Opinion

Average Certainty: **Not Calculated**

Consensus (85%) Reached? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.57

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

% of Votes: 100

Individual Certainty	Notes
7	Not Applicable: <u>Extirpated</u>
5	No basis for any choice but Not Applicable. <u>Extirpated</u> since 1800s, but is there a chance it will turn up again? Host plant exists as far north as Mullica River watershed
7	Not Applicable: Agree with other voters that records are only historic. <u>Extirpated</u> now, if ever present.
6	Not Applicable: Probably <u>extirpated</u> .
6	Not Applicable: <u>Extirpated</u> if ever resident.
8	Not Applicable: <u>Extirpated</u> , if ever resident.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.57

Consensus (85%) Reached? **YES**

SPECIES: Arogos Skipper

Atrytone arogos

Consensus reached in Round 1

Proposed status: ENDANGERED*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	7	0	0	0	0	0	0	6.86

Round 1

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	7	0	0	0	0	0	0	6.86

Justifications:

Endangered

Individual Certainty	Notes
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- 7 Formerly considered extirpated, Arogos Skipper is now known from two areas in NJ, one each in Morris County and at Fort Dix/McGuire AFB. The Morris County population continues in single digit numbers in only two or three very small colonies. I have no current information regarding the status of the McGuire AFB/Fort Dix population.
- 6 Only two populations in the state. Northern population mostly unprotected.
- 7 This opinion is relevant only to the population in northern NJ, which is at the vanishing point in one or two known locations. The southern population, if it is the same species, may merit a T designation, as it is apparently less rare, though very local.
- 8 Already on the endangered list. Most historic populations believed to be extirpated. Known populations (Fort Dix) should be monitored and historic population and surrounding areas should be rechecked.
- 6 Extremely restricted occurrence; strongly affected by fire suppression, but now threatened by controlled burning
- 8 One of our rarest butterflies in NJ and in the Eastern US. It has suffered range wide declines in the Eastern U.S. Several Pinelands colonies lost in Penn SF. Still present on Ft. Dix in good numbers (20+ individuals observed at one location) as of 2012 and 2013 and is probably the stronghold in NJ. Northern NJ colonies have been greatly reduced over the last two years and without immediate action will likely be lost.
- 6 This is an Endangered Species in NJ, by my understanding. Only a single report on the SJBFL Log from 2008 (Dale Schweitzer and Will Kerling, Fort Dix).

Average Certainty: **6.86**

Consensus (85%) Reached in Round 1? **YES**

SPECIES: Dusted Skipper

Atrytonopsis hiana

Consensus reached in Round 4

Proposed status: SPECIAL CONCERN

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	1	5	0	0	0	5.57
Round 2	0	1	1	5	0	0	0	5.71
Round 3	0	0	4	3	0	0	0	6.43
Round 4	0	0	6	1	0	0	0	6.5

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	1	5	0	0	0	5.57

Justifications:

Endangered

Individual Certainty	Notes
6	A rare and thinly dispersed skipper. Not any recent records of this occurring? Does not occur in any historic Pine Barren habitats.

Average Certainty: 6

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
7	Numbers have greatly declined in northern NJ, with very few colonies known. If the situation in southern NJ is similar, may merit a higher classification.

Average Certainty: 7

Stable/Secure

Individual Certainty	Notes
6	Secure- Apparently very rare in the first half of the 20 th century, Dusted Skipper is uncommon and local now. Though usually seen in small numbers, it is widespread in open and dry areas in much of the state.
5	Apparently Secure- Uncommon but found throughout the state.
4	Apparently Secure. Multiple sites in southern counties, but habitat is restricted due to lack of fire, etc. Airports, power lines and other annually mowed areas. Short flight season may limit observations.
7	Apparently Secure.
4	The SJBFB Log has only 23 reports in six years of this early-season species. Is it the short flight in out-of-the-way places that suppresses our numbers? Or is it less common in South Jersey today than it was twenty years ago? My understanding is that is more numerous (at least more often found) in North Jersey. I vote a shaky "Apparently Secure" with Confidence Level of only 4, since Log numbers seem low, and I am relying on secondhand information about its status elsewhere in the state.

Average Certainty: 5.2

Other **NO VOTES**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	1	5	0	0	0	5.71

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
7	Originally I put it as endangered with a confidence level at 6. Now, I will lower my status and put threatened but increase my confidence level to 7. It is a rare skipper in both north and south NJ. Being rare in both halves of the state it deserves protection. None of the comments in the "secure/stable" fields from round 1 have convinced me to lower my status assessment any lower.

Average Certainty: 7

Special Concern **% of Votes: 14.3**

Individual Certainty	Notes
7	Now very scattered in both North (where reports come from 4:8 sites) and South Jersey, and many observations up north are of single individuals. Bluestem-dominated habitat is not really all that common, and is vulnerable to development and mismanagement.

Average Certainty: 7

Stable/Secure **% of Votes: 71.4**

Individual Certainty	Notes
6	Apparently Secure- Uncommon and local. Usually in very small numbers, but widespread in suitable habitat.
3	Apparently Secure. Multiple sites in southern counties, but habitat is restricted due to lack of fire, etc. Airports, power lines and other annually mowed areas. Short flight season may limit observations. This species would probably benefit from habitat restoration in the pine barrens. That does not seem to be a criterion for listing, however. SC might be justifiable due to loss of original habitats and reliance on uncertain management practices.
4	Apparently Secure- A tough call between Apparently Secure and Special Concern. The SJBF Log has only 23 reports in six years. Is it seldom found because of early flight season, or because it's in trouble?
6	Apparently Secure- Uncommon but found throughout the state.
7	Same assessment as per Round 1 comments.

Average Certainty: 5.2

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	4	3	0	0	0	6.43

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern**% of Votes: 57.1**

Individual Certainty	Notes
7	I remain solidly with Special Concern. This species is actively searched for in North Jersey (especially as it continues to disappear), so it's not a matter of the short flight season curtailing the number of observations. Two of those voting Apparently Secure note that SC might be justifiable—and it is.
7	It is a rare skipper in both north and south NJ. Being rare in both halves of the state, it deserves some sort of listing. Vulnerable to development and mismanagement. Def not “found throughout the state.” Not sure about “widespread” either with the couple places that I know where they occur.
8	This species is on the edge for me and we need to target more research work at it.
6	I am keeping my vote as Special Concern, the category that drew 5 of the 7 votes last time. Rationale was detailed in Rounds 1 & 2.

Average Certainty: 7**Stable/Secure****% of Votes: 42.9**

Individual Certainty	Notes
6	Apparently Secure: Uncommon and local. Usually seen in small numbers, but widespread in suitable habitat at least in northern NJ.
6	Apparently Secure: Uncommon but found throughout the state.
5	I stick to Apparently Secure on the grounds that rarity per se is not justification for listing in the absence of definite threats. It's another species probably less common than in the past because of reduction in open grasslands of the right type: Airports, power lines and other annually mowed areas. Multiple sites in southern counties, but habitat is restricted due to lack of fire, etc. Short flight season may limit observations. This species would probably benefit from habitat restoration in the pine barrens. That does not seem to be a criterion for listing, however.

Average Certainty: 5.7**Other****NO VOTES**Consensus (85%) Reached in Round 3? **NO****Round 4**

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	6	1	0	0	0	6.5

Justifications:

Endangered NO VOTES**Threatened NO VOTES****Special Concern****% of Votes: 85.7**

Individual Certainty	Notes
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6 Rare and local in northern NJ, in very small numbers at one or two somewhat reliable sites, but found only sporadically in suitable habitat elsewhere, I am elevating my assessment to "Special Concern".

6 Moving my vote up to SC. Uncommon and local. Usually seen in small numbers. Needs more study to understand if it's just local or declining.

7 I cannot ignore the marked decline in this species in the North to a handful of sites with only 5 or so individuals. It definitely needs to be watched.

Staying with Species of Concern due to the Round 3 comments.

7 Comments for Apparently Secure did not match up with my experience and current data on it: "widespread" and "found throughout the state" and "multiple sites in southern counties." Neither is the case for southern NJ, especially the Pine Barrens so not sure how those claims can be made. Please list where it occurs and citations on current or historic data when it can occur also. This would be beneficial to panelists and the NJDEP.

Not Indicated Special Concern: I am keeping my vote as Special Concern, the category that drew 5 of the 7 votes in both Rounds 2 and 3. Rationale was detailed in Rounds 1 & 2.

8 Special concern: this species has declined significantly and warrants listing and research.

Average Certainty: 6.8

Stable/Secure

% of Votes: 14.3

Individual Certainty	Notes
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5 *I stick to Apparently Secure on the grounds that rarity per se is not justification for listing in the absence of definite threats. It's another species probably less common than in the past because of reduction in open grasslands of the right type: Airports, power lines and other annually mowed areas. Multiple sites in southern counties, but habitat is restricted due to lack of fire, etc. Short flight season may limit observations. This species would probably benefit from habitat restoration in the pine barrens. That does not seem to be a criterion for listing, however.*

Average Certainty: 5

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: Golden Banded Skipper

Autochton cellus

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	6.4
Round 2	0	0	0	0	0	0	7	6.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	6.4

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
6	Not Applicable: <u>Extirpated</u> . Probably never resident in New Jersey. Possibly overlooked because of similarity with Silver-spotted Skipper. Only a very few old records.
6	Not Applicable: <u>Extirpated</u> if ever resident
8	Not Applicable: <u>Extirpated</u> . Uncertain whether ever a resident.
5	Not Applicable: <u>Extirpated</u> .
Not indicated	No Opinion
7	Not Applicable: <u>Historic species</u> and likely to have been <u>extirpated</u> .
Not indicated	No Opinion

Average Certainty NA: 6.4

Consensus (85%) Reached in Round 1? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.71

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 100

Individual Certainty	Notes
7	Not Applicable: <u>Extirpated</u>
6	Not Applicable: <u>Extirpated</u> , if it ever was indigenous. No records to support anything else.
7	Not Applicable: Agree with voters who note that records are very old; species <u>extirpated</u> now (if it ever was a resident).
6	Not Applicable: Probably never a resident, thus <u>extirpated</u> .
6	Not Applicable: <u>Extirpated</u> if ever resident.
8	Not Applicable: <u>Extirpated</u> , if ever resident.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.71

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Silver-bordered Fritillary

Boloria selene

Consensus reached in Round 2

Proposed status: ENDANGERED*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	5	1	0	0	0	1	0	6.67
Round 2	7	0	0	0	0	0	0	6.86

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	5	1	0	0	0	1	0	6.67

Justifications:

Endangered

Individual Certainty	Notes
7	Never common, not one single individual was reported in NJ in 2013. One of the two previous Sussex County strongholds has been flooded by beaver activity. The other Sussex colony, along with the ones in Middlesex and Monmouth Counties also proved barren. In the last decade, two individuals from other Sussex County locations were reported. One hopes the species survives somewhere in NJ.

- 5 Numbers of butterflies and sites where found are dramatically down in past decade. Loss of appropriate habitat appears to be main cause.
- 8 Formerly much more widespread; number of known sites has greatly declined in recent years. Possibly only one known colony left in northwestern NJ, and central Jersey site highly vulnerable to mismanagement by utility company.
- 7 Historic populations have declined dramatically or have been wiped out. Only a few remain in NNJ. Do any exist in SNJ anymore? Habitats are not being managed for it.
- 8 Several NJ populations have declined considerably over the last several years and it had already suffered wide spread population decreases prior to this time period. Even some of the better sites have had few to no individuals observed over the last several years.

Average Certainty: 7

Threatened

Individual Certainty	Notes
5	Gochfeld and Burger 1997 report a few records from three SJ counties: Burlington, Cumberland, and Ocean: in the 1990s, and reference two apparently extant colonies at the time of publication. NO records on the SJBFB Log 2008:2013 and no observer I know knows where a current colony exists here. North Jersey observers have more familiarity with the species, of course, so I would certainly defer to their opinions for its full, statewide status. If South Jersey could designate a separate status, this species would be classified as Endangered or Extirpated.

Average Certainty: 5

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
Not indicated	No Opinion

Average Certainty: **Not calculated**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	7	0	0	0	0	0	0	6.86

Justifications:

Endangered

% of Votes: 100

Individual Certainty	Notes
8	Never common, not one single individual was reported in NJ in 2013. One of the two previous Sussex County strongholds has been destroyed by beaver activity. The other Sussex colony, along with the ones in Middlesex and Monmouth Counties also proved barren. In the last decade, two individuals from other Sussex County locations were reported. One hopes the species survives somewhere in NJ.

4 Pretty clearly always a peripheral species in NJ, but with predictable presence and clearly on the decline. For NJ, E is justifiable but might be overreaching, since the causes of the decline are not certain and it isn't clear what management needs would be.

6 Gochfeld and Burger 1997 report a few records from three SNJ counties: Burlington, Cumberland, and Ocean: in the 1990s, and reference two apparently extant colonies at the time of publication. We have no records on the SJBFL Log 2008:2013 and no observer I know knows where a current colony exists on the Coastal Plain. Am moving my vote to Endangered (from Threatened), based on comments from voters who know its grim status in NNJ.

8 See round 1 panelist comments.

6 Numbers of butterflies and sites where found are dramatically down in past decade. Loss of appropriate wetland habitat appears to be main cause. This species appears to be almost gone from the state.

8 Another species on the verge of winking out, if it hasn't already. None were observed at the 2 known Sussex County sites in 2013.

7 Same assessment as per Round 1 comments.

Average Certainty: 6.86

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached after Round 2? **YES**

SPECIES: Northern Metalmark

Calephelis borealis

Consensus reached in Round 2

Proposed status: ENDANGERED*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	4	1	0	0	0	2	0	7.2
Round 2	7	0	0	0	0	0	0	6.85

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
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Count	4	1	0	0	0	2	0	7.2
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Justifications:

Endangered

Individual Certainty	Notes
8	Historically declining since the early 1980s. Rare and extremely local with very specific habitat needs. Unfortunately the required habitat is a fairly early succession one which disappears naturally as well as from development. This butterfly never travels very far from where it emerges so chances of finding suitable additional habitat are limited. Management of known colonies is required if the species is to survive. The known Stillwater/Fredon populations are Extirpated. The largest known remaining colony (Warren County) is shrinking fast. Two small colonies survive in Sussex County. Other colonies are unknown.
8	Extremely limited range; one host plant; vulnerability of habitat to invasive plant species. Severe decline apparently due to habitat degradation since survey by Norris in the 1980s:90s. Only two colonies left, both of which require vigilant management.
7	Populations are rare. However, where they do occur, abundance is high. Habitats aren't being managed.
8	This species and declined considerable in NJ and rangewide and now it restricted to two small populations in NJ which may be its stronghold. Without further action this species will likely be extirpated within 10 years if habitat management is not implemented at a larger scale. This is probably one of our most imperiled butterflies at this time.

Average Certainty: 7.75

Threatened

Individual Certainty	Notes
5	Very local in only a few sites in Sussex and Warren counties. Number of sites definitely reduced in past decade.

Average Certainty: 5

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
Not indicated	No Opinion
Not indicated	No Opinion

Average Certainty: Not calculated

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	7	0	0	0	0	0	0	6.85

Justifications:

Endangered		% of Votes: 100
Individual Certainty	Notes	
8	Very vulnerable to loss of habitat. The only known remaining strong colony (Warren County) has declined sharply in the past five years. Two very small colonies in Sussex County survive. Other colonies are unknown.	
4	All opinion seems to point to 1. Fewer than 3 known sites and 2. specific threat of loss of habitat/host plant, requiring management to insure future persistence	
6	Comments from other voters about the apparently grim situation (only two or three colonies remaining) have led to my vote.	
8	See Round 1 panelist comments	
6	Declining in recent decades and now rare and very local in NW part of state with a couple of known small colonies. Single host plant with apparently additional requirements needed. Because of succession, will not survive in the state without active management.	
8	We will be very lucky if we do not lose this species within 5:10 years. The Stillwater-Hardwick metapopulation has been devastated, their habitat overwhelmed by invasive species (barberry, Morrow's honeysuckle, autumn olive, Japanese stilt grass). Only known colonies, at White Lake Natural Area and Kittatinny Valley SP, are similarly threatened and will require ongoing habitat management.	
8	Same assessment as per Round 1 comments.	

Average Certainty: 6.86

- Threatened** **NO VOTES**
- Special Concern** **NO VOTES**
- Stable/Secure** **NO VOTES**
- Other** **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Hessel's Hairstreak*

Callophrys hesseli

Consensus reached in Round 4

Proposed status: SPECIAL CONCERN*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	1	3	2	0	0	0	6.29

Round 2	0	1	5	1	0	0	0	6.6
Round 3	0	2	4	1	0	0	0	6.57
Round 4	0	0	7	0	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	1	3	2	0	0	0	6.29

Justifications:

Endangered

Individual Certainty	Notes
6	Not described until 1950, some prior records of Juniper Hairstreak probably refer to this species. Rare and extremely local. Depends on a single habitat, White Cedar Swamps. Recently only a handful of records each year primarily from two locations, Warren Grove, Burlington County, and Chatsworth, Monmouth County, with only five individuals reported in 2013. Gochfeld and Burger† list it as having been recorded in the past also in Atlantic, Cape May, and Ocean Counties, so possibly other colonies may still be extant.
<u>Average Certainty: 6</u>	

Threatened

Individual Certainty	Notes
8	This species is highly localized and could potentially have lost considerable habitat due to cedar dieback from Hurricane Sandy. This species appears to have declined rangewide and now has highly disjunct populations. It is probably secure in the NJ pinelands but this may become a population stronghold for this species.
<u>Average Certainty: 8</u>	

Special Concern

Individual Certainty	Notes
6	Known from only a few locations, but a comprehensive survey of Atlantic White Cedar bogs would probably discover additional colonies. Habitat vulnerable to deer browsing of regenerating cedar.
8	I have recorded this species in at least ten different cedar bogs. Hard to find, but it seems where there is a large cedar bog, the butterfly should be there.
6	This species is on the state's "Special Concern" list and I'd vote to leave it there. It seems to be holding its own, however. Observers find it regularly in season at a number of sites. My Confidence Level is undermined a little by the fact that this is a charismatic butterfly regularly pursued by many observers. That attention may be inflating our numbers some.
<u>Average Certainty: 6.67</u>	

Stable/Secure

Individual Certainty	Notes
5	Apparently Secure- Doesn't seem to be decreasing. Many potential sites are difficult to survey.
5	Apparently Stable: Not easy to observe in proportion to likely abundance. Occurs widely and fairly consistently.
<u>Average Certainty: 5</u>	

Other

NO VOTES

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	5	1	0	0	0	6.6

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
	It is not only known from a "few locations" but at least ten different cedar bogs that I have surveyed. Since it is a tree topper butterfly, they are hard to find, however it seems wherever there is a large cedar bog, the butterfly should be there with enough effort in looking.
8	If anything Atlantic white cedar is more threatened than the butterfly thus...eventually... the butterfly. White cedar is the number one food source for deer, which is over abundant in NJ so it is very difficult for these cedar bogs to regenerate. Also, white cedar is extremely salt intolerant, thus being threatened by climate change with sea level rise and all the road salt being dumped for snow storms.
<u>Average Certainty: 8</u>	

Special Concern **% of Votes: 71.4**

Individual Certainty	Notes
7	Known only in very small numbers from a few locations, but unknown colonies are possible.
6	The SJBFB log has 48 reports of this species in six years from five counties (ATL, BUR, CMY, CUM, and OCN) and about a dozen different bogs. Numbers are generally only in the single digits, however, and probably a little inflated (compared to other species) because this is a charismatic butterfly pursued each year by many observers.
6	Regularly reported from only a couple of the same sites in southern NJ every year. Probably more common than realized and so should be looked for more broadly in large cedar swamps with nearby nectar sources.
7	Meets the Threatened criterion of having narrow habitat affinities, plus there is little understanding of current population status (because observer attention is concentrated on a very few sites)—therefore by definition it qualifies for Special Concern.
7	Same assessment as per Round 1 comments.
<u>Average Certainty: 6.6</u>	

Stable/Secure **% of Votes: 14.3**

Individual Certainty	Notes
5	Apparently stable. Not easy to observe in proportion to likely abundance. Occurs widely and fairly consistently. Host plant is not all that severely threatened and is being actively managed. No other threats identified to justify SC, T or E.
<u>Average Certainty: 5</u>	

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	2	4	1	0	0	0	6.57

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 28.6**

Individual Certainty	Notes
6	I can only repeat my earlier assessment: Meets the Threatened criterion of having narrow habitat affinities, plus there is little understanding of current population status (because observer attention is concentrated on a very few sites)—therefore by definition it qualifies for Threatened.
	It is not only known from a “few locations” but at least ten different cedar bogs that I have surveyed. Since it is a tree top butterfly, they are hard to find, however it seems wherever there is a large cedar bog, the butterfly should be there with enough effort in looking.
8	If anything Atlantic white cedar is more threatened than the butterfly, thus, eventually, the butterfly. White cedar is the number one food source for deer, which are over abundant in NJ so it is very difficult for these cedar bogs to regenerate. Also cedar is extremely salt intolerant, thus being threatened by climate change with sea level rise and all the road salt being dumped for snow storms.
	As for many other butterfly species, it is only as secure as the habitat is.

Average Certainty: 7

Special Concern **% of Votes: 57.1**

Individual Certainty	Notes
6	Known only in small numbers at a very few locations despite active search, this species seems to be present only as a small population. Also, it probably suffers from some collecting pressure. I am keeping my assessment at Special Concern.
6	Regularly reported from only a couple of the same sites in southern NJ every year. Probably more common than realized and so should be looked for more broadly in large cedar swamps with nearby nectar sources.
8	This should be listed due to its restricted nature and feel that it should be considered more when it comes to AWC management planning in the State and we are very close to consensus for SC.
7	I am keeping my vote as Special Concern, the category that drew 5 of the 7 votes last time. Rationale was detailed in Rounds 1 & 2.

Average Certainty: 6.8

Stable/Secure **% of Votes: 14.3**

Individual Certainty	Notes
	APPARENTLY STABLE. Not easy to observe in proportion to likely abundance. Occurs widely and fairly consistently. Host plant is not all that severely threatened and is being actively managed. No other threats

5 identified to justify SC, T or E.

Average Certainty: 5

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	7	0	0	0	0	6.29

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

% of Votes: 100

Individual Certainty	Notes
5	Known in small numbers at several locations, this difficult to find butterfly, though only sparsely reported, could be more common than it seems. However, as one panelist stated in Round 3, it is only as secure as its White Cedar habitat.
6	Regularly reported from only a couple of the same sites in southern NJ every year. Probably more common than realized and so should be looked for more broadly in large cedar swamps with nearby nectar sources. Needs more study.
7	I believe that this species meets the criteria for Threatened, but in the interest of consensus I will change my vote to Special Concern, in the hope that any status at all will encourage more-intensive efforts to determine its true population status.
4	I'll change to Special Concern, since it seems to be inevitable. As I have said before, since it's likely that the state will rely on volunteer efforts to monitor these species, I worry that listing may actually end up discouraging the finding and documenting of new reliable records.
8	This should be a Species of Concern. Again, I have seen this species occur in at least ten different cedar bogs. Thus more than a "few locations" and "very few (concentrated) sites." from all around the NJ Pine Barrens. They are difficult to find because of their tree-topping behavior, but just because something is difficult to find, does not mean it is rare...or even uncommon.
8	Again, even though this is a collected butterfly, there is no data that suggests the population is being hurt from it or any insect for that matter.
6	Keeping my vote with the majority from Round 2 and 3 for reasons detailed in earlier rounds.
8	Special Concern: This species should be listed and special concern seems to be appropriate considering it is readily found in suitable habitat. More research needs to be conducted in order to determine its exact status.

Average Certainty: 6.3

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: Frosted Elfin

Callophrys irus

Consensus reached in Round 2

Proposed status: THREATENED

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	5	1	0	0	0	0	6.14
Round 2	1	6	0	0	0	0	0	5.86

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.14

Justifications:

Endangered

Individual Certainty	Notes
----------------------	-------

8 This species has declined considerably in NJ and nationally and NJ may contain some of the best remaining populations in the country. Several sites in NJ have been lost or declined due to poor habitat management.

Average Certainty: 8

Threatened

Individual Certainty	Notes
----------------------	-------

6 Historically also known from NW New Jersey, but now with the only known stronghold at Lizard Tail Preserve in Cape May County, and a scattered report or two from elsewhere in Cape May and Atlantic Counties. The colony at Assunpink WMA has been Extirpated for more than a decade.

5 Locally uncommon with very restricted habitat.

7 Occurs in relatively few sites, some of which are actively managed in its favor. Apparently no recent records from AC Airport, which was a stronghold. Highly vulnerable to deer browsing of host plant.

7 Stronghold for this species is in many places in Cape May county. Populations seem to be okay using observational data but they still need to be monitored.

5 The species is classified as Threatened at the moment (I believe), but I worry that hoary elfin actually may be more vulnerable. At least two apparently strong, dependable populations of frosted elfin exist in South Jersey: Lizard Tail Swamp Preserve (Cape May Co) and in/around the Atlantic City Airport (Atlantic County). The SJBFB log has a handful of reports from other sites as well. I would not like to vote to undermine protection for frosted elfin, but I want to underscore that, at least according to NJPB Log data, hoary may be in a more precarious position.

Average Certainty: **6**

Special Concern

Individual Certainty	Notes
----------------------	-------

5 Vulnerable to habitat loss, but apparently stable at several locations

Average Certainty: **5**

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	6	0	0	0	0	0	5.86

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
----------------------	-------

7 After reading Round 1 comments I feel it should be endangered. All the panelists' comments for threatened during Round 1 should be elevated to endangered, especially when the Atlantic City airport "used" to be a stronghold for them but not anymore.

Average Certainty: **7**

Threatened

% of Votes: 85.7

Individual Certainty	Notes
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6 Having a very restricted habitat, and apparently with only two strong colonies remaining.

3 Vulnerable to habitat/host plant loss, but occurs more widely than C. polios, making it hard to justify T, except that the species may be reliant on active intervention.

5 The SJBFB has 148 reports of this species over six years. The majority: 121 come from Lizard Tail Swamp Preserve, where it often found in high double digits and even occasionally in triple digits. Another 34 reports (some in double digits) are from the Dennisville RR tracks. Another colony in/around the Atlantic City Airport is less studied (only 4 reports) because it is mostly within a no access/special permit area. The airport colony is probably undercounted. I am leaving my vote at Threatened (rather than moving down to Special Concern) because of the comments of other voters. Hoary elfin seems to me at least as threatened as this species.

6 Locally uncommon with very restricted habitat.

7 Less vulnerable than Hoary since it occurs on more sites, some of which are actively managed in its favor.

7 Same assessment as per Round 1 comments.

Average Certainty: **5.7**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Hoary Elfin

Callophrys polios

Consensus reached in Round 4

Proposed status: THREATENED

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	2	0	4	1	0	0	0	6.29
Round 2	2	1	4	0	0	0	0	6.57
Round 3	1	5	1	0	0	0	0	6.29
Round 4	1	6	0	0	0	0	0	6.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	0	4	1	0	0	0	6.29

Justifications:

Endangered

Individual Certainty	Notes
7	Population concentrated in one main colony site, which is vulnerable to collecting and fire.
8	Only remaining populations in NJ are in and near Warren Grove. Previous historic populations do not exist. They do not occur anywhere else in the Pine Barrens as far as I know. Its host plant bearberry is not very fire tolerant either. Habitats for this species are being burned and managed for the forests, but not the species itself and host plant.

Average Certainty: 7.5

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
5	Most patches of Bearberry in Pinelands don't support this butterfly.
5	Restricted range/habitat, but apparently stable in areas where it occurs

8 This species appears to have been declining in much of its southern range and it highly restricted by its habitat type in NJ. It also very vulnerable to forest management activities and habitat change in NJ.

5 This species is often numerous at its best known site, Warren Grove, where it is regularly seen in double digit numbers. That has long been the case at that site (fide Gochfeld and Burger). However, all but 4 of 37 SJBFL Log records over the past six years come from that single area. It is currently listed as a "Species of Special Concern." I would lean that way since the numbers are so good there, but I have chosen a low 5 for Confidence Level because no other colonies that I know seem to compare to that Warren Grove site. If a large fire destroyed all Warren Grove's bearberry at a critical time of year, where and how would this species survive in the state while the bearberry recovered? Is "Threatened" possibly a more accurate status?

Average Certainty: 5.75

Stable/Secure

Individual Certainty	Notes
----------------------	-------

6 Apparently Secure: Historically highly local. Continues rare and very local. But good populations at Warren Grove in Burlington County and Lakehurst in Atlantic County.

Average Certainty: 6

Other NO VOTES

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	1	4	0	0	0	0	6.57

Justifications:

Endangered

% of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

8 Population not threatened by collecting since Bombing Range Rd and the "bearberry flats" have been collected for over 50 years and the species does still occur. However, the only known population of hoary elfin is in Warren Grove. Just one population. Warren Grove is large, yes, but they only occur where there is an opening with an abundance of bearberry, which is not fire tolerant. An example of this would be Bombing Range Rd. If you go 50 meters into the dwarf forest though, you will still see bearberry but NOT the butterfly. Elsewhere in the Pine Barren does support bearberry (Chatsworth) but the butterfly does not occur everywhere the host plant is.

Previous populations used to occur in Camden County, Cumberland County, Chatsworth, and Lakehurst, but not anymore. Hard to argue they should not be endangered.

8 The fact that almost the entire population is concentrated in one location at Warren Grove makes this species highly vulnerable to a catastrophic event such as fire, and their numbers are probably constantly depleted by collectors.

Average Certainty: 8

Threatened

% of Votes: 14.3

Individual Certainty	Notes
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Changing my vote (from Special Concern) in response to other voters' comments both about this species and about frosted elfin (in comparison). This species is often numerous at its best known site, a single

6 section of the Warren Grove bearberry flats, where it is regularly seen in double digit numbers. However, all but 4 of 37 SJBFLog records over the past six years come from that single, relatively small area. As far as I know, no other significant colony exists anywhere in the state. The situation of this species is at least as precarious as frosted elfin's and probably more so. If a fire destroyed that single bearberry section (in that fire-prone area), how would this species survive in New Jersey?

Average Certainty: 6

Special Concern

% of Votes: 57.14

Individual Certainty	Notes
7	Though the population seems to be fairly stable, it is confined to a very few locations which are vulnerable to fire.
5	Restricted range/habitat, but apparently stable in areas where it occurs, not enough evidence of immediate threat to support T or E
5	Good colonies at Warren Grove and Lakehurst. Most patches of Bearberry in Pinelands don't support this butterfly but larger patches should and should be sought out.
7	Same assessment as per Round 1 comments.

Average Certainty: 6

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	<i>The only known population for hoary elfin is Warren Grove or close to it. Just ONE population. There are a couple scattered populations around it but dwindling. If a fire comes through which is very likely to happen since Warren Grove is the second highest fire frequency habitat in the country the population will get extirpated. All previous known populations in NJ have are now gone, including Camden County, Cumberland County, Chatsworth and Lakehurst.</i>
	<i>How is this species not endangered with one location that can potentially be wiped out and all other known populations are now gone?</i>

Average Certainty: 8

Threatened

% of Votes: 71.4

Individual Certainty	Notes
6	I am raising my assessment to Threatened because almost the entire known population is confined to a single site, a site which is surrounded by area susceptible to fire. Also since 1970, four other sites occupied by this species no longer are. Fortunately the population at the remaining site appears to be stable, despite possible collecting.

Individual Certainty	Notes
7	I am backing off a notch from E to T, because even though this species is confined to perhaps only two colonies it does not meet the E definition of "in immediate danger," but it does meet the T criteria of restricted range and narrow habitat affinities (plus its habitat is highly vulnerable to fire, which could put Hoary Elfin in immediate danger very quickly).
5	Reliable colonies at Warren Grove and Lakehurst, but both sites would be vulnerable to fire. Most patches of Bearberry in Pinelands don't support this butterfly but larger patches should and should be sought out. To my mind, the status of this butterfly is similar to Frosted Elfin but a little more widespread.
7	We can all agree that this species should be listed. Due to its highly restricted habitat types and the fact that it could be threatened by poor state land management, I would say that it is greater than SC. I do not feel that it is reasonably imperiled to justify Endangered. Maybe we could all meet in the middle at Threatened.
6	Two voters last Round chose E. Four chose SC; one chose T. Can we compromise at T – for the reasons detailed by several voters last time, including a vote for SC? This is a vulnerable species apparently extant only in a handful of colonies, where fire is likely. It seems to me more endangered than frosted (which is more widespread and probably more numerous): which we agreed was a T species.

Average Certainty: 6.2

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
5	This is a clear case for SC, because there are identifiable threats (fire and the small number of colonies) that could lead the species to become Threatened in the immediate future.

Average Certainty: 5

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	6	0	0	0	0	0	6.43

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	<p>This is a species I will still not go with the majority and stick with Endangered. See all previous Round comments. My main reasons are that the only known population is Warren Grove and around it. There is NO gene flow with any other populations outside of the state and not in NJ since it's the only location. Warren Grove being the second highest fire frequency area in the country has a high chance of one fire extirpating this population. All historic populations in NJ are now gone including ones in Camden and Cumberland County along with Chatsworth and Lakehurst.</p> <p>I don't see how this species can be any less than endangered.</p> <p>No evidence suggests collecting hurts populations. Paul Ehrlich actually proved they don't do any damage at all doing a population study at Stanford with a fritillary species and he was purposely collecting every individual for five years.</p>

Average Certainty: 8

Threatened

% of Votes: 85.7

Individual Certainty	Notes
6	As stated in Round 3, almost our entire known population is confined to a single site, one which is surrounded by habitat susceptible to fire. Also since 1970, four other sites occupied by this species no longer are. Fortunately the population at the remaining site appears to be stable despite possible collecting.
5	Reliable colonies at Warren Grove and Lakehurst, but both sites would be vulnerable to fire. Most patches of Bearberry in Pinelands don't support this butterfly but larger patches should and should be sought out. This species doesn't appear to be in immediate danger so Endangered classification not justified.
7	I remain with Threatened for reasons stated earlier: narrow habitat affinities, and only 2 known colonies, that are highly vulnerable to fire.
4	I'll join the consensus on threatened, but I worry that listing will potentially create new problems and perhaps curtail needed research, rather than insuring that it occurs.
7	Threatened. After Round 3, we were within one vote for a majority voting for Threatened. I sincerely hope we get that majority this time. The reasons for T (if not E) have been detailed by several panelists: most importantly, this is a species apparently confined to two relatively small, fire-prone sites. It seems to me a species more threatened than frosted elfin (which we agreed deserved T) because it exists in fewer sites.
8	Threatened: The restricted range and potential threats warrant this species being listed as Threatened.

Average Certainty: 6.2

Special Concern NO VOTES

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: Arctic Skipper

Carterocephalus palaemon

Consensus reached in Round 3

Proposed status: Not Applicable

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	0	0	0	2	4	6.6
Round 2	2	0	0	0	0	0	5	6.14
Round 3	1	0	0	0	1	0	5	7

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special	Secure	Unknown	No	Not	Certainty
--------	------------	------------	---------	--------	---------	----	-----	-----------

Count	1	0	0	0	0	2	4	6.6
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Justifications:

Endangered

Individual Certainty	Notes
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5 Small populations might still occur. Need to check historic specimens to find old locals where this species can potentially still be found.

Average Certainty: 5

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
----------------------	-------

8 Not Applicable: Historical, possibly Extirpated: Formerly known from one location in Sussex County. Last New Jersey report, a single individual in 2005. Locally common in northern New England.

6 Not Applicable: Extirpated.

7 Not Applicable: Historical. The only known colony has apparently winked out, but it's possible others are out there in remote northern sedge meadows.

Not indicated No Opinion: No explanation

7 Not Applicable: On edge of the species range and the small colony that occurred here winked out. Probably not a resident species.

Not indicated No Opinion

Average Certainty NA: 7

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	0	0	0	0	0	5	6.14

Justifications:

Endangered

% of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

6 Small populations can still potentially be found. Need to check historic specimens to find old locals where this species can still potentially be found.

7 Apparently extirpated since there are no records from the single known colony since 2005, but since it cannot meet the 30-year requirement I reluctantly settle for Endangered.

Average Certainty: 6.5

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other **% of Votes: 71.4**

Individual Certainty	Notes
8	Not Applicable: <u>Historical</u>
3	Not Applicable: <u>Extirpated</u> but if it was present in the 2000s, it raises the question of how we are supposed to treat species seen within the past thirty years [see under West Virginia White].
6	Not Applicable: Agree with voters who note it is probably not a resident species.
6	Not Applicable: <u>Historic</u> . Only ever known in state from one site at High Point SP which is on the southern edge of its range. Hasn't been seen there for a decade despite yearly searching.
7	Same assessment as per Round 1 comments.

Average Certainty: 6

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	1	0	5	7

Justifications:

Endangered **% of Votes: 14.3**

Individual Certainty	Notes
6	<i>Small populations can still potentially be found. Need to check historic specimens to find old locals where this species can still potentially be found.</i>

Average Certainty: 6

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other **% of Votes: 85.7**

Individual Certainty	Notes
	NOT APPLICABLE: Historical: The last report was of a single individual in 2005, at the site of New Jersey's

Individual Certainty	Notes
7	previously only known colony. Re-colonization seems doubtful.
8	UNKNOWN: I would LIKE to consider this species NOT APPLICABLE because it has apparently been extirpated (not seen at the single known colony site in 9 years). However, according to the instructions/clarifications sent by Melanie on March 31, there must be no records for at least 30 YEARS to consider a species Not Applicable due to being Extirpated. If NOT APPLICABLE is not applicable, one must assign a conservation status. Although the most obvious choice might be Endangered, I have strong objections to "cluttering" the list of Endangered species that are known to be still extant in NJ with those that can reasonably be considered extirpated even if they do not meet the 30 year criterion. The limited attention and resources available for monitoring and management of listed species should be directed toward those species that are still here. I therefore vote UNKNOWN, since I consider it legitimate to say that we don't have enough information to know whether Arctic Skipper is still resident in NJ.
7	NOT APPLICABLE: Extirpated.
7	NOT APPLICABLE: This is a hard one but I am not confident that it could be a self-sustaining resident species. Was the colony a random colonization (NA) or was it a relic of the past (SC, T, E)?
7	NOT APPLICABLE. In terms of recent history, clearly a peripheral species with a temporary colony or two. "The species does not occur in New Jersey with regularity or predictability..." Conceivably a victim of climate change.
7	Keeping vote same as last time, agree with majority: not a resident species.

Average Certainty: Unknown: 8
Not Applicable: 7

Consensus (85%) Reached? **YES**

SPECIES: Appalachian Azure

Celastrina neglectamajor

NO Consensus reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	3	2	2	0	6.2
Round 2	0	0	0	4	2	1	0	5.86
Round 3	0	0	0	3	3	1	0	6.28
Round 4	0	0	0	3	3	1	0	5.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	3	2	2	0	6.2

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern NO VOTES

Stable/Secure

Individual Certainty	Notes
6	Apparently Secure- Only recently separated from Spring Azure with which together with Summer Azure it is easily confused. Very local; never very far from only known food plant, Black Cohosh. Several small colonies in northern NJ. Population remains small and possibly declining.
5	Apparently Secure- Widespread but local in swath of state where host plant is found.
7	Apparently Secure but should probably have a better survey effort made to determine its status better.
<u>Average Certainty: 6</u>	

Other

Individual Certainty	Notes
7	Unknown: Difficult to evaluate status because of confusion with 'Summer' Spring Azure, which may also utilize the same larval host plant.
6	Unknown: This species of in the azure complex needs to be worked on further.
Not indicated	No Opinion
Not indicated	Not a South Jersey species and no records in our data.
<u>Average Certainty U: 6.5</u>	

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	4	2	1	0	5.86

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure

% of Votes: 57.1

Individual Certainty	Notes
6	Apparently Secure- Widespread but local near Black Cohosh. Population may be declining.
5	Apparently Secure- Agree with voters who note that this recently-recognized species needs more study.
	Apparently Secure- Widespread but local in swath of state where host plant is found.

6

7 Same assessment as per Round 1 comments.

Average Certainty: 6

Other

% of Votes: 42.9

Individual Certainty	Notes
----------------------	-------

5 The justifications for S all seem to underline the lack of certainty about the species status.

6 No Opinion: Part of the azure complex. D. Wright & H. Pavulaan are the only ones really qualified to assess azures in NJ.

6 Unknown: This species is so recently described and so difficult to separate from other azures that we do not have adequate information regarding its population status.

Average Certainty: 5.7

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	3	3	1	0	6.28

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure

% of Votes: 42.9

Individual Certainty	Notes
----------------------	-------

6 Apparently Secure- Widespread but local near its host plant, Black Cohosh. I see no reason to change my original assessment of its status.

6 Apparently Secure- Widespread but local in swath of state where host plant is found.

5 Keeping my vote with the majority last time that, until we know more about this enigmatic species (and how to identify it), we can't say it's troubled.

Average Certainty: 5.7

Other

% of Votes: 57.1

Individual Certainty	Notes
----------------------	-------

6 UNKNOWN: This species is so recently described and so difficult to separate from other azures (mere association with Black Cohosh is not sufficient) that we do not have adequate information regarding its population status.

Individual Certainty	Notes
7	UNKNOWN: Recently described species in the azure complex that D. Wright and H. Pavulaan are the only ones really qualified to assess azures in NJ. They have done a thorough assessment for all the species in the state including this one. No one else would come close to knowing the butterfly's status or distribution other than these two.
8	NO OPINION: We have consensus to not list this species and the rest is in the details which is telling. We obviously need some better understanding of this species. I will go with the majority on this.
6	I stay with U. The justifications for S all seem to underline the lack of certainty about the species status. It is reported as local and widespread, but there is concern about confusion with other members of the genus.

Average Certainty: Unknown: 6.3
No Opinion: 8

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	3	3	1	0	5.71

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure

% of Votes: 42.9

Individual Certainty	Notes
Not Indicated	<i>Apparently Secure- Widespread but local near its host plant, Black Cohosh, this species shows no sign of decline.</i>
6	<i>Apparently Secure- Widespread but local in swath of state where host plant is found. One can distinguish this taxon from other azure taxons by the timing of its adults and caterpillars and the wing pattern and size difference of the adults.</i>
5	<i>Apparently Secure. Until we know more about this enigmatic species (and how to identify it), we can't say it's troubled.</i>

Average Certainty: 5.5

Other

% of Votes: 57.1

Individual Certainty	Notes
7	Unknown: I am not persuaded that enough is generally known about this species to assign a status.
6	Unknown: I stay with U. The justifications for S all seem to underline the lack of certainty about the species status. It is reported as local and widespread, but there is concern about confusion with other members of the genus.
8	No Opinion: Unless you are David Wright or Harry Pavulaan no one on the panel is qualified put a status on this species. They have not only done their research on all northeast Celastrina, but also can map out where they all occur historically and currently.

Average Certainty: 7.3

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: *Harris' Checkerspot*

Chlosyne harrisii

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	1	0	0	2	3	5.8
Round 2	1	0	0	0	0	0	6	5.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	1	0	0	2	3	5.8

Justifications:

Endangered

Individual Certainty	Notes
----------------------	-------

5 Potentially extirpated but small populations could potentially exist. Need to look at collected specimens to find old locals where they did occur and recheck.

Average Certainty: 5

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
----------------------	-------

7 Maintain SC status in the event a colony is discovered but this species is likely extirpated and should be considered historic. NJ was on the southern end of its range. I would go with the majority opinion.

Average Certainty: 7

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
----------------------	-------

5 Not Applicable: Historical: Formerly resident in northern NJ; reported in the 1940s†. No recent records.

Currently declining in southern New York.

- 4 Not Applicable: Extirpated.
- 8 Not Applicable: Historical. No colonies currently known, but we still hold out some hope. Climate change could be an issue.
- Not indicated No Opinion
- Not indicated No Opinion

Average Certainty: NA: 5.67

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	0	0	6	5.43

Justifications:

Endangered **% of Votes: 14.3**

Individual Certainty	Notes
5	Potentially extirpated but small populations could still potentially exist. Need to look at collected specimens to find old locals where they did occur and recheck.

Average Certainty: 5

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other **% of Votes: 85.7**

Individual Certainty	Notes
5	Not Applicable: <u>Historical</u>
5	Not Applicable: <u>Extirpated</u> . The arguments for keeping this listed seem based on hope, rather than data, but if it was present in the 1990s, it raises the question of how we are supposed to treat species last seen within the past thirty years [see under West Virginia White].
5	Not Applicable: No recent records. <u>Extirpated</u> .
5	Not Applicable: <u>Historical</u> . Last confirmed report that I know of is from 1996. However, I still hold out hope that a small colony will be found in northern NJ. Food plant is still extant.
7	Not Applicable: Probably <u>Extirpated</u> , but does not meet the 30-year requirement for no confirmed reports. Not reliably reported since 2000, despite active searching. I therefore reluctantly change to Endangered as the only possible fit, though I do not like to clutter the list of extant Endangered species with those for which there is very little likelihood that they still exist here.

6 Not Applicable: Probably extirpated.

Average Certainty: **5.5**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Silvery Checkerspot

Chlosyne nycteis

Consensus reached in Round 2

Proposed status: Not Applicable

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	6.4
Round 2	1	0	0	0	1	0	5	Not Calc

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	6.4

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
6	Not Applicable: <u>Historical</u> : Formerly rare in NJ; present in the 1960s†. No recent records. Sparse but widespread inland in eastern states. At least until recently present in small numbers in southern New York and southern Pennsylvania.
6	Not Applicable; <u>Extirpated</u> .
8	Not Applicable: <u>Historical</u> . 2006 single observer record was not supported by documentation. Possibly overlooked owing to similarity to Pearl Crescent
5	Not Applicable: Most likely <u>Extirpated</u>
Not indicated	No Opinion

7 Not Applicable: Historic

Not indicated No Opinion

Average Certainty NA: 6.4

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	1	0	5	Not Calc

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
----------------------	-------

5 Okay, so I am going to throw a curve ball in here by saying endangered. I am suggesting this because they did historically occur in the state and were quite common. Some of these common locations were Salem, Camden, and Gloucester counties, all of which are not really looked at for butterflies. There could potentially still be a colony or two somewhere as unlikely as it may be. Just something to consider. Historic specimens should be looked at to see where they used to occur in these counties.

Average Certainty: 5

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 85.7

Individual Certainty	Notes
----------------------	-------

6 Not Applicable: Historical

6 Not Applicable: Extirpated. S5 in NY: Is there possibility this might recolonize? But if it was present in the 1990s, as the state maps indicate, it raises the question of how we are supposed to treat species last seen within the past thirty years [see under West Virginia White].

5 Not Applicable: No recent records. Probably extirpated.

Not Indicated Not Applicable: Extirpated

7 Unknown: No known sites, and difficult to evaluate past and present population status owing to similarity to Pearl Crescent.

8 Same assessment as per Round 1 comments.

Average Certainty: **Not Calculated**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Monarch

Danaus plexippus

Consensus reached in Round 2

Proposed status: SPECIAL CONCERN

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1								
Round 2	0	0	6	1	0	0	0	6.14

Round 1

Species did not undergo first round assessment. Species added in Round 2 as per a panelist's request.

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	6	1	0	0	0	6.14

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 85.7

Individual Certainty	Notes
6	Very few reports in double digits last year. The precipitous recent decline is serious cause for concern, though at least part of it for 2013 can be attributed to weather conditions.
5	This species seems in its own category. It is far more numerous than any other species on this list, even in a down year such as 2013. On the SJBF log it has been for several of our years among the top two or three most frequented reported species and/or most numerous (the species with the highest totals of individuals). The news from its wintering area in the Mexican mountains, however, indicates that it is very troubled there. The designation that we give it seems to depend on how we understand our role: are we focused on a species' status in the state or on the species' international situation. "Special Concern" seems a kind of compromise designation.
7	The next 50 years this species will be very hard to find. It will never be extinct but the great migration of the monarch will not exist anymore. (Personal Communication L. Brower.) Habitat for host plant threatened by development.
5	Not sure how to handle because of special circumstance at this juncture for this iconic species. Nonresident, yearly immigrant that breeds within the state with significant decline in numbers in recent years having mostly to do with circumstances outside the state. Numbers should be monitored going forward. Species has means to recover but hard to say in early 2014 that the numbers within the state are stable because of the recent decline.
8	Migratory populations crashed in 2013 owing to factors occurring mainly outside New Jersey. So merits at least Special Concern until it can be determined whether any recovery occurs (which seems doubtful at this point). If extremely low numbers continue, it may be desirable to hold a special Delphi round, similar to what

was done for Golden-winged Warbler.

7 National declines might warrant species listing as SC. Probably would be a species better addressed at a Federal Level from a conservation point of view.

Average Certainty: 6.33

Stable/Secure

% of Votes: 14.3

Individual Certainty	Notes
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5 *Many threats cited in other areas are not likely to apply in NJ, but fate of migrant populations is out of NJ's hands. Current fluctuations may not be evidence of major decline. S seems most justified, as demonstrably secure has to be doubted, given current situation in other parts of the continent.*

Average Certainty: 5

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: Early Hairstreak

Erora laeta

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	7
Round 2	0	0	0	0	0	0	7	6.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	7

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
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7 Not Applicable: No definite records†. Could occur in New Jersey†. Rare and local New England south

through Appalachians.

- 6 Not Applicable: Extirpated if ever resident
- 8 Not Applicable: Extirpated. Based on a single literature record, uncertain whether ever a resident.
- 7 Not Applicable – Extirpated.
- Not indicated No Opinion
- 7 Not Applicable: NJ on edge of range and probably not a resident species.
- Not indicated No Opinion

Average Certainty NA: 7

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.71

Justifications:

- Endangered** NO VOTES
- Threatened** NO VOTES
- Special Concern** NO VOTES
- Stable/Secure** NO VOTES

Other

% of Votes: 100

Individual Certainty	Notes
7	Not Applicable: Extirpated
6	Not Applicable: Extirpated, if it ever was indigenous. No records to support anything else.
6	Not Applicable: Agree with voters who note it is uncertain whether this species was ever resident in NJ.
7	Not Applicable: Probably has never been a NJ resident, thus extirpated.
6	Not Applicable: Extirpated if ever resident.
8	Not Applicable: Extirpated, if ever resident.
7	Same assessment as per Round 1 comments.

Average Certainty: **6.71**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Sleepy Duskywing

Erynnis brizo

Consensus reached in Round 4

Proposed status: Special Concern

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1								
Round 2	0	0	3	3	0	1	0	Not Calc
Round 3	0	0	5	2	0	0	0	6.43
Round 4	0	0	6	1	0	0	0	6.67

Round 1

Species did not undergo first round assessment. Species added in Round 2 as per a panelist's request.

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	3	3	0	1	0	Not Calc

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 42.9

Individual Certainty	Notes
5	The SJBFB log has compiled only 44 reports for this species in total over six years (~7 reports/year), almost all of them in the single digits. Its early flight season in mostly out-of-the-way areas in the Pine Barrens, and also perhaps the difficulty of its identification for some observers, might be contributing factors to those low counts. However, my vote (pending other panelists' comments on this species) is that we consider it for "Special Concern."
8	Declined dramatically in the past century from NNJ. Has declined in the peripheral part of the Pine Barrens, such as Camden and Cumberland counties. Found in Cape May country in the recent decade? Has not been found in Chatsworth in past 5 (10?) years. Can be found in Warren Grove but it is very uncommon. Threatened by gypsy moth spraying being an oak feeder. I would even consider threatened for next round.
5	Very local in North Jersey (<10 known locations), and always seen in very low numbers. If South Jersey situation is better, may merit Secure status.

Average Certainty: 6

Stable/Secure

% of Votes: 42.9

Individual Certainty	Notes
6	Apparently Secure- Locally common in northern NJ, especially along ridge tops. Apparently not declining. More common in southern NJ, particularly in the Pine Barrens.
6	Apparently Secure- Uncommon and local but widespread. Found on ridge-tops in NW part of state, but most common in Pinelands or Pinelands outliers.
Not Indicated	Apparently Secure- widespread sightings in NJ.

Average Certainty: **Not Calculated**

Other

% of Votes: 14.3

Individual Certainty	Notes
7	Waiting to see what others have to say on this. Small numbers, widespread in southern New Jersey

Average Certainty: 7

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	5	2	0	0	0	6.43

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

% of Votes: 71.4

Individual Certainty	Notes
5	Locally common in small numbers in north-western NJ, but apparently holding steady. However, considering the declines particularly in the Pine Barrens reported by panelists from southern NJ, I am revising my assessment to Special Concern.
6	I remain with SC since the comments from South Jersey indicate declines, low numbers, and only scattered reports, so the situation is similar to NNJ.
	Very glad to see other panelists voting for species of concern when this wasn't originally on the list NJDEP sent us.
8	Declined dramatically in the past century from NNJ. Has declined in the peripheral part of the Pine Barrens, such as Camden and Cumberland counties. Found in Cape May county in recent decade? Has not been found in Chatsworth in past 5 (10?) years. Can be found in Warren Grove but it is very uncommon. Threatened by gypsy moth spraying being an oak feeder.
	Agree with other species of concern comments 100%

Individual Certainty	Notes
	No butterfly species is safe on ridge tops with climate change.
7	There is an even split on this one and I would lean towards the SC listing in order to have it on the conservation radar.
7	Round 2 was our first compilation of comments on this species. I am more convinced it deserves SC now that I have read other panelists' comments.
<u>Average Certainty: 6.6</u>	

Stable/Secure

% of Votes: 28.6

Individual Certainty	Notes
6	<i>Apparently Secure- Uncommon but widespread. Found along ridge tops in Sussex and Warren counties and pinelands and pineland remnants in southern and central NJ.</i>
6	<i>Apparently Secure- Small numbers, widespread in southern New Jersey, no threats identified.</i>
<u>Average Certainty: 6</u>	

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	6	1	0	0	0	6.67

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

% of Votes: 85.7

Individual Certainty	Notes
6	Though locally common in northwest NJ in small numbers and perhaps holding steady, declines particularly in the Pine Barrens solidify the argument in favor of Special Concern.
Not Indicated	Moving my vote to SC based on comments of declines from southern NJ panelists. Small ridge-top colonies in northern NJ appear to be stable.
6	Another species for which it would be helpful to have a centralized database of reports in order to better evaluate its population status.
8	Sticking with SC. See Round 3 comments. Not "widespread" in south NJ...anymore. Historically, yes. Threats would be habitat loss, lack of wildfire in scrub oak habitat, and gypsy moth spraying
Special Concern: Keeping my vote for this status. It may once have been widespread in southern NJ, but	

6 data from SJBF log (2008:2014) do not support that interpretation now.

8 Special Concern: This species has declined considerably and needs further research and surveying.

Average Certainty: 6.8

Stable/Secure

% of Votes: 14.3

Individual Certainty	Notes
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6 Apparently Secure- Small numbers, widespread in southern New Jersey, including 2014, no threats identified.

Average Certainty: 6

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: *Columbine Duskywing*

Erynnis lucilius

Consensus reached in Round 2

Proposed status: Unknown

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	0	0	2	4	0	6
Round 2	1	0	0	0	3	1	2	6.14

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	2	4	0	6

Justifications:

Endangered

Individual Certainty	Notes
----------------------	-------

5 Populations potentially can still exist. Host plant is common in NNJ? Duskywings have always been difficult to identify in the field.

Average Certainty: 5

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
8	Unknown: Very difficult to separate from Wild Indigo Duskywing. Its host plant and preferred habitat are common in northern New Jersey.
3	No Opinion: Don't know of any recent records but difficult to tell from Wild Indigo Duskywing
7	Unknown: Difficult to evaluate past and present population status owing to near-impossibility of separating this species from Wild Indigo Duskywing (which may also utilize its columbine host plant).
Not indicated	No Opinion
7	No Opinion: <u>Historic</u>
Not indicated	No Opinion

Average Certainty U: 7.5

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	3	1	2	6.14

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
6	Populations can still potentially exist in NNJ. Host plants and habitats are common for NNJ. Difficult to identify compared with the common wild indigo duskywing, thus the importance of collecting specimens. Recommend looking at historic specimens for historic locations to revisit these locations.

Average Certainty: 6

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 85.7

Individual Certainty	Notes
8	Unknown: Very difficult to separate from Wild Indigo Duskywing. Its host plant and preferred habitat are common in northern New Jersey.
5	Unknown: U is the best choice, given difficulty in ID and lack of specific information.
6	Not Applicable: Apparently no certain records that it has existed in the state. Certainty undercut by difficulty of separating from wild indigo duskywing (as other voters have noted.)

- 4 No Opinion: Don't know of any recent records but difficult to tell from Wild Indigo Duskywing so I truly don't have any opinion on this species.
- 7 Unknown: Difficult to evaluate past and present population status owing to near-impossibility of separating this species from Wild Indigo Duskywing (which may also utilize its columbine host plant).
- 7 Same assessment as per Round 1 comments.

Average Certainty: 6.17

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Mottled Duskywing*

Erynnis martialis

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	6.4
Round 2	0	0	0	0	0	0	7	6.17

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	6.4

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
6	Not Applicable: <u>Historical</u> , possibly <u>Extirpated</u> : Formerly rare and local in New Jersey. No recent records. Nearly absent from NE US. Nearest colonies in the Albany Pine Bush and barrens in extreme south-central Pennsylvania.
6	Not Applicable: <u>Extirpated</u> .

8 Not Applicable: Extirpated.

5 Not Applicable: Probably Extirpated.

Not indicated No Opinion

7 Not Applicable: Extirpated

Not indicated No Opinion

Average Certainty NA: 6.4

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.17

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 100

Individual Certainty	Notes
6	Not Applicable: Extirpated
4	Not Applicable: Extirpated but if it was present in the 1990s, it raises the question of how we are supposed to treat species last seen within the past thirty years [see under West Virginia White].
6	Not Applicable: Extirpated.
5	Not Applicable: Extirpated.
Not Indicated	Not Applicable: Extirpated
8	Not Applicable: Extirpated. Don't know the date of last confirmed report, but it predates the early 1990s, and this species seems unlikely to have been documented within the last 30 years.
8	Same assessment as per Round 1 comments.

Average Certainty: 6.17

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Persius Duskywing*

Erynnis persius

Consensus reached in Round 2

Proposed status: Not Applicable

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	1	2	4	6
Round 2	0	0	0	0	2	0	5	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	1	2	4	6

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
5	Not Applicable: <u>Extirpated</u> : May never have been in New Jersey. Not described until 1936†. Most old records probably were of Wild Indigo Duskywing. Extremely rare in the east, confined to a few locations in eastern New England‡.
6	Not Applicable: <u>Extirpated</u> if ever resident
7	Unknown: Difficult to evaluate past and present population status owing to similarity to Wild Indigo Duskywing.
5	Not Applicable: Potentially <u>extirpated</u> .
Not indicated	No Opinion
7	Not Applicable: <u>Historic</u>
Not indicated	No Opinion

Average Certainty U: 7
 NA: 5.75

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	2	0	5	6.29

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

% of Votes: 100

Individual Certainty	Notes
7	Unknown: May never have been in New Jersey. Old records may have been of Wild Indigo Duskywing. Extremely rare in the east, confined to a few locations in eastern New England.
5	Not Applicable: <u>Extirpated</u> , if it ever was indigenous. No records to support anything else.
7	Not Applicable: If it was ever present here, it is now apparently <u>extirpated</u> .
5	Not Applicable: <u>Extirpated</u> .
6	<u>Extirpated</u> if ever resident.
7	Unknown: Difficult to evaluate past and present population status owing to similarity to Wild Indigo Duskywing.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.14

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Baltimore Checkerspot

Euphydryas phaeton

Consensus reached in Round 2

Proposed status: SPECIAL CONCERN

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	4	0	0	2	0	6.2
Round 2	1	0	6	0	0	0	0	6.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	4	0	0	2	0	6.2

Justifications:

Endangered

Individual Certainty	Notes
7	Historically used to be common throughout the state. Very few remaining populations. Absent in SNJ.
<u>Average Certainty: 7</u>	

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
6	Historically declining though very locally common in some areas. However, in the past few years even in those areas where it was once common it has declined dramatically.
5	Widespread but local in northern part of state. Number of sites where found is definitely down.
6	Appears to be a general decline in population. One highly productive site on protected land in northern NJ is rapidly losing out to succession. Early-instar host plant vulnerable to deer browse.
7	This species appears to have declined rangewide as well as in NJ and warrants better surveying and research effort to determine its habitat requirements and the reasons behind its decline.
<u>Average Certainty: 6</u>	

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
Not indicated	No Opinion
Not indicated	No Opinion: "Always rare in South Jersey," write Gochfeld & Burger, 1997. No records 2008-2013 and no South Jersey observers have mentioned to me that they have recorded this species in the southern eight counties. North & Central New Jersey observers should be the people making the call on this species on its state status. It seems not be a species of NJ's Coastal Plain.
<u>Average Certainty: Not calculated</u>	

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	6	0	0	0	0	6.71

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	I stick with being endangered. All panelist comments for species of concern mentioned declines. However, it has declined tremendously in over 50 years. It being absent in SNJ is enough for me to say it is endangered when it did historically occur in SNJ.
	Not much literature on butterfly species, especially abundance in NJ. Have to look at historic specimens at previous locations that are now gone.

Average Certainty: 8

Threatened

NO VOTES

Special Concern

% of Votes: 85.7

Individual Certainty	Notes
8	Widespread but local in northern NJ. However, even in those areas where it was once common it has declined dramatically in the past five years. The number of locations where found has also declined.
5	No clear threat is identified, although habitat/host plant loss seems to be the main vulnerability and decline seems to be generally supported.
6	Apparently no longer found on the Coastal Plain. No SJBF records, 2008:2013, and no South Jersey observers have mentioned to me that they have recorded this species in the southern eight counties. Based on this and comments of other voters, I have changed my vote.
6	Widespread but local in northern part of state. Number of sites where found is definitely down probably because of succession and possibly deer browse of primary host plant. Further study of decline is needed.
7	Not ready to consider a higher status until a comprehensive survey of its habitats provides a better idea of its population status.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.5

Stable/Secure

NO VOTES

Other

NO VOTES

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Two-spotted Skipper

Euphyes bimacula

Consensus reached in Round 4

Proposed status: Threatened

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	2	1	0	1	2	0	6
Round 2	1	5	1	0	0	0	0	5.86
Round 3	1	5	1	0	0	0	0	6.29
Round 4	0	6	1	0	0	0	0	6.57

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	2	1		1	2		6

Justifications:

Endangered

Individual Certainty	Notes
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8 A rare skipper of wetland habitats that are being overgrown. Already a species of concern, this species should be elevated because of the loss of habitat that has already and will continue to occur. Management plans need to be placed to keep this skipper going extinct in the state.

Average Certainty: 8

Threatened

Individual Certainty	Notes
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5 Very rare with limited declining habitat.

4 This is another skipper (after Leonard's) with a current state status of "Species of Special Concern" that I would like to see at least considered for "Threatened" status. Like dotted skipper, this species is limited to relatively inaccessible Pine Barrens areas which are not often investigated by field observers, so that undercuts my Confidence level. However, based on the scarcity of records— only 15 reports (totaling only 24 individuals), 12 of which from the same limited area in Parker Preserve (and most by Stephen Mason during his intensive survey of the Preserve): this seems a species to consider for a change of status. Unlike dotted skipper, it is an eye-catching easy ID – but we have even fewer records. My sense is that two-spotted could be rarer than dotted and more vulnerable. Again, I admit my Confidence Level is low. It is a species of muck, and so chasing it requires special determination: which might suppress the count and so make the species seem less numerous than it actually is. I hope that is the case and that I am wrong in worrying about this butterfly.

Average Certainty: 4.5

Special Concern

Individual Certainty	Notes
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8 Formally widespread species that is now highly localized in NJ and declining regionally.

Average Certainty: **8**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
5	Unknown: Possibly more common in the past, Two-spotted Skipper is rare and very local now. Currently known from only two locations in NJ. None reported from the Parker River WMA in Burlington County. I have no current information regarding the colony at the Lakehurst Bog in Ocean County. Other bogs with suitable habitat probably get less coverage.
Not Indicated	No Opinion
Not Indicated	No Opinion

Average Certainty U: **5**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	5.86

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	<p>A rare skipper of wetland habitats that are being overgrown. Already a species of concern, this species should be elevated because of the loss of habitat that has already and will continue to occur. Management plans need to be placed to keep this skipper from going extinct in the state.</p> <p>This species does stray from wetland habitats into the uplands. Males do also seem to be territorial and will perch on tops of plants. It is an easy species to ID. My point is that with all these characteristics of this skipper, if it is around somewhere, it would be easy to find. However, it is rarely encountered in the Pine Barrens and SNJ.</p> <p>Host plant is known among caterpillar farmers, but has not been published.</p>

Average Certainty: **8**

Threatened

% of Votes: 71.4

Individual Certainty	Notes
3	Apparently rare and local. Possibly declining.
7	<p>Comments from voters in first round have raised my confidence level to 7 that this is a Threatened Species. The SJBFB Log has only 15 reports (totaling only 24 individuals), 12 of which from the same limited area in Parker Preserve (and most by Stephen Mason during his intensive survey of the Preserve). Unlike dotted skipper, it is an eye-catching & easy ID – yet we have even fewer records.</p> <p>Very rare with limited declining habitat. Only current locations known to me are one site each in Burlington and Ocean counties. However, finding other sites would take a directed concerted effort so this species may</p>

- 6 be underreported.
- 6 Absent from North Jersey and occurs at only a handful of sites in South Jersey, where the habitat is vulnerable to succession.
- 7 Same assessment as per Round 1 comments.

Average Certainty: 5.8

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
4	Except for wetland succession, no clear threats identified. Not considered a strict habitat specialist (Cech and Tudor 2005). Is this a case where rarity alone is the main factor creating a perceived threat? It seems too widespread for T or E, but certainly isn't S. SC is the best option. It seems it is clearly SC in north, if not T or E, but not clearly so in southern counties

Average Certainty: 4

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.2

Individual Certainty	Notes
	A rare skipper of wetland habitats that are being overgrown. Already a species of concern, this species should be elevated because of the loss of habitat that has already and will continue to occur. Management plans need to be placed to keep this skipper from going extinct in the state.
8	This species does stray from wetland habitats into the uplands. Males do also seem to be territorial and will perch on tops of plants. It is an easy species to ID. My point is that with all these characteristics of this skipper, if it is around somewhere, it would be easy to find and ID. However, it is rarely encountered in the Pine Barrens and SNJ. Host plant is known among caterpillar farmers, but has not been published.

Average Certainty: 8

Threatened

% of Votes: 71.4

Individual Certainty	Notes
6	Rare and local with limited declining habitat. Known mainly from only two sites, but other ones may exist in abandoned and possibly even active cranberry bogs scattered through the Pine Barrens.
6	Succession at the limited number of known sites should not be considered a minor threat, since these wetland areas are not being managed to improve or at least stabilize the situation.

Very rare with limited declining habitat. Only current locations known to me are one site each in Burlington

Individual Certainty	Notes
5	and Ocean counties. However, finding other sites would take a directed concerted effort so this species may be underreported.
8	We have consensus to list and majority is threatened.
6	I am keeping my vote as Threatened, the category that drew 5 of the 7 votes last time. Rationale was detailed in Rounds 1 & 2.

Average Certainty: 6.2

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
5	Except for wetland succession, no clear threats identified. Hard to tell whether this is a case where rarity alone is the main factor creating a perceived threat. I am concerned that the habitat is hard to survey and the species may be underreported more than threatened. Not much known about ecology, so it is not clear what can be done for it. It certainly isn't S*. SC is the best option. The NatureServe and BAMONA maps suggest that this might be a species that is having trouble because of climate change. BAMONA lists the host as Carex trichocarpa Muhl. ex Willd. hairyfruit sedge, which has a distribution in NJ similar to that of the skipper. If the sedge species is declining, it might be a factor.

Average Certainty: 5

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	6	1	0	0	0	0	6.57

Justifications:

Endangered NO VOTES

Threatened

% of Votes: 85.7

Individual Certainty	Notes
6	Rare and very local with declining habitat. Known only from two sites, though with a small chance that other colonies may exist in abandoned cranberry bogs somewhere in the Pine Barrens, I will stick with "Threatened".
6	Very rare with limited declining habitat. Only current locations known to me are one site each in Burlington and Ocean counties. However, finding other sites would take a directed concerted effort so this species may be underreported.
6	The majority seems to be settling on Threatened, and I will stay there.

I will lower my vote from Endangered to Threatened to get the 85% consensus and Threatened is still a higher listening than its current SC status. Though, it still should be Endangered as Round 3 comments.

8 "Other ones (sites) may exist..." This panel cannot speculate this on any species, not just this one.

7 Threatened: Keeping my vote for this category (could be persuaded to up to E) for reasons detailed in earlier rounds. Again, I am unconvinced by the "rarity alone" argument as a reason not to list a species. This seems to me a vulnerable species that we should be working to protect. It could soon be too late to learn why it is so rare.

8 Threatened: this species is very restricted in NJ and needs further surveying and research directed at it.

Average Certainty: 6.83

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
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5 *Except for wetland succession, no clear threats identified. Hard to tell whether this is a case where rarity alone is the main factor creating a perceived threat. I am concerned that the habitat is hard to survey and the species may be underreported more than threatened. Not much known about ecology, so it is not clear what can be done for it if it were listed as T or E. It certainly isn't S*. SC is the best option.*

Average Certainty: 5

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: *Dion Skipper*

Euphyes dion

Consensus reached in Round 2

Proposed status: Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	3	4	0	0	0	6
Round 2	0	0	1	6	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	3	4	0	0	0	6

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
6	Known from only a relatively small number of sites, though occurs in good numbers at some colonies. Wetland habitat is relatively secure from development, though possibly vulnerable to succession
8	Uncommon throughout the Pine Barrens but still reliable to find in the right places at the right times. However, again, it is uncommon. This species should be monitored to figure out population abundances.
8	Highly localized species but widespread in NJ. Large numbers observed in suitable habitat on Ft. Dix during 2012. Appears to have declined range wide and should probably warrant great concern in NJ.

Average Certainty: 7.33

Stable/Secure

Individual Certainty	Notes
6	Secure- Uncommon to rare and local in wet habitats, but widespread. While not seen in large numbers, it does not appear to be declining.
5	Apparently Secure- Found throughout the state in grass wetlands.
4	Apparently Secure. Widespread observations, consistent across years.
5	I would vote "Apparently Secure." The SJBFB Log has 40+ reports, which is not that many, but they come from a wide variety of sites and this is a wetland species that generally requires observers to track into inaccessible, mosquito-infested areas. Furthermore, it is not an easy ID. My sense is that if we had more veteran and sharp-eyed observers willing to wade into muck in mid:summer, we would have more records. Two of our best and most diligent observers, Will Kerling and Brian Johnson, counted 117 in one site in 2012.

Average Certainty: 5

Other **NO VOTES**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	6	0	0	0	6.29

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
	See round 1 comments for species of concern. Though it is "widespread," it is still "uncommon to rare." SJBC log helps a lot with data/numbers/locations. My concern out of many is that these dion skipper records that were very numerous were on a good day where all individuals were out. 2012 could have been an outbreak

8 year for the species too. Hard to determine population dynamics with just observational data.

Average Certainty: 8

Stable/Secure

% of Votes: 85.7

Individual Certainty	Notes
6	Apparently Secure- Often in small numbers, but does not seem to be declining.
5	Apparently Secure. Widespread observations, consistent across years. In the absence of identified threats or clear evidence of decline, SC is not warranted.
6	Apparently Secure- The SJBFL Log has 40+ reports, which is not that many, but they come from a wide variety of sites and sometimes in high numbers (e.g. 117 one day/one site). If more observers who knew how to ID this species explored bogs and muddy river edges, reports would probably go up.
6	Apparently Secure- Found throughout the state in grass wetlands. Not found in all suitable habitats but numbers don't seem to be significantly declining.
6	Apparently Secure- Uncommon and local in North Jersey, but appears to be more widespread and more common in South Jersey.
7	Same assessment as per Round 1 comments.

Average Certainty: 6

Other NO VOTES

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Harvester*

Fenistica tarquinius

Consensus reached in Round 4

Proposed status: Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	1	2	3	1	0	0	5.71
Round 2	0	1	2	3	1	0	0	6.14
Round 3	0	1	3	3	0	0	0	6.29
Round 4	0	0	1	6	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	2	3	1	0	0	5.71

Justifications:

Endangered **NO VOTES**

Threatened

Individual Certainty	Notes
7	Not many known populations for this species. When encountered, it's usually one at a time. Some new areas for this species have been found in south NJ. Gloucester, Camden, and Salem counties should be searched for more.
<u>Average Certainty: 7</u>	

Special Concern

Individual Certainty	Notes
7	Occurs in small numbers in widely scattered colonies and is dependent on an ephemeral larval host that in turn is partially dependent on American Beech that in turn is vulnerable to beech blight. Probably somewhat more common than sightings suggest, since colonies can be hard to locate.
4	I lean toward "Species of Special Concern" but admit a low confidence level. Our two dozen SJBFLog records come from only the recent two years (zero reports for first four years, 2008:11), and all but two of those records are limited to a handful of sites in Gloucester County (with two reports from a single site in Burlington Co). This seems is a tough species to find in southern NJ. In more than twenty years chasing butterflies here, I'd never seen one in this part of the state until last summer (2013). Gochfeld & Burger 1997 note its current status is "poorly known." That seems still the case, at least in the southern half of the state. See pdf of spreadsheet for SJBFLog records.
<u>Average Certainty: 5.5</u>	

Stable/Secure

Individual Certainty	Notes
6	Apparently Secure- Never common. Very small colonies persist at NJAS Scherman-Hoffman Sanctuary in Somerset County, Dismal Harmony Nature Area in Morris County, and Flatbrook-Roy WMA in Sussex County. Larger ones at Tatum Park in Monmouth County, and Chestnut Branch Park in Gloucester County. Occasional, one-off reports scattered elsewhere. Somewhat better numbers from Burlington and Gloucester Counties. Population remains very small.
6	Secure- Normal population appears to consist of a number of local colonies that disappear but then pop up elsewhere. Harvesters feeding on beech-feeding aphids appear to be more common than those feeding on alder-feeding aphids.
3	Apparently Secure- but probably should be monitored to determine factors influencing abundance and survival at known sites and further searching done to discover new colonies/populations as number of known/reported sites in small
<u>Average Certainty: 5</u>	

Other

Individual Certainty	Notes
7	Unknown: There does not appear to be enough information available to call this species SC. It appears to have highly fluctuating populations and distribution and NJ might be on the edge of the core range. Probably not stable.
<u>Average Certainty: 7</u>	

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	2	3	1	0	0	6.14

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
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7 Not many known populations or historic known populations. When found, they are not found in great abundance. This information is common among panelists, I'm sure but that is enough for me to classify them as threatened for now. Yes, more data needs to be collected for this species and can be used for next time the butterflies are reviewed. Hopefully by then, this species, and others won't be gone.

Average Certainty: 7

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
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6 Two dozen SJBFB Log records come from only the recent two years (zero reports for first four years, 2008:11), and all but two of those records are limited to a handful of sites in Gloucester County (with two reports from a single site in Burlington Co). In twenty+ years pursuing butterflies I had never seen one in SNJ until last summer (2013). Gochfeld & Burger 1997 note its current status is "poorly known." That seems still the case, at least in the southern half of the state.

6 Harvester meets two criteria for Threatened in that it apparently has a small overall population size and "narrow habitat affinities," but it merits Special Concern because "there is little understanding of current population status."

Average Certainty: 5.5

Stable/Secure **% of Votes: 42.9**

Individual Certainty	Notes
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6 Apparently Secure- Widely distributed in NJ in scattered small colonies. Numbers small but apparently stable.

6 Apparently Secure- Local with widespread colonies in mostly northern NJ but new colonies are being found in southern NJ as people learn its habitat. Probably underreported since colonies usually found in small open areas in woods near water and adults don't normally come to flowers.

7 Same assessment as per Round 1 comments.

Average Certainty: 6.33

Other **% of Votes: 14.3**

Individual Certainty	Notes
----------------------	-------

6 Unknown: All the first round assessments point to unknown status. Enough doubt as to whether it is secure, but no definite threats identified. Rarity in itself not evidence of decline.

Average Certainty: 6

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	3	3	0	0	0	6.29

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
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Not many known populations or historic known populations. When found, they haven't been found in great abundance unless they are having an "up" year. This information is common among panelists, I'm sure, but that is enough for me to classify them as threatened for now. Yes, more data needs to be collected for this species (and a lot of others) and can be used next time the butterflies are reviewed. Ho

7 Panelist: "Harvester meets two criteria for Threatened in that it apparently has a small overall population size and 'narrow habitat affinities' but it merits Species Concern because 'there is little understanding of current population status.' I agree with this statement a lot and well said. However, as mentioned many times with other species, unless a population study with scientific methods are applied is used, all population data is anecdotal. Maybe that is the best we can do now, but by the time it is applied, if ever it may be too late.

Average Certainty: 7

Special Concern **% of Votes: 42.9**

Individual Certainty	Notes
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6 I agree with the individual that stated 'Harvester meets two criteria for Threatened in that it apparently has a small overall population size and "narrow habitat affinities",....', though I believe that Special Concern is the appropriate status because the population, though small, is apparently stable.

8 This species appears to warrant listing and we need to target survey efforts to better understand its distribution. SC allows us to target work and hopefully prevent the species from declining and needing to be listed at a higher rank.

6 Another species that drew differing votes in Round 2: 1 T, 2 SC, 3 AS, 1 Other. I am keeping my vote as SC...seems an erratic species that we need to understand better. I just don't feel confident calling it Apparently Stable. Details and numbers provided last time.

Average Certainty: 6.67

Stable/Secure **% of Votes: 42.9**

Individual Certainty	Notes
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6 Apparently Secure. Although publicly accessible colonies in North Jersey are few in both number and number of individuals, most have persisted for many years. Apparently has always been essentially "local," "erratic," "sporadic", "rare," etc. (citations in Gochfeld and Burger). Upon further consideration, I am willing to upgrade from Special Concern, but it would be extremely helpful if a centralized database could be established to keep track of all reports of apparently thinly-dispersed species such as this, Hickory Hairstreak, and Oak Hairstreak, so that their status could be tracked more definitively.

6 Apparently Secure. Local with widespread colonies in mostly northern NJ but new colonies are being found in southern NJ as people learn its habitat. Probably underreported since colonies usually found in small open areas in woods near water and adults don't normally come to flowers.

5 I go with those who say Apparently Secure, because it is widespread, and no definite threats have been identified. Rarity in itself not evidence of decline. I agree that it is likely to be underreported. This is another case where it seems inappropriate to confer a status like threatened or endangered on a species that is not globally threatened. There seems no official reason to list it as SC

Average Certainty: 5.7

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	6	0	0	0	6.29

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern % of Votes: 14.3

Individual Certainty	Notes
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7 Will lower my T vote to SC from my Round 3 comments and others.

Average Certainty: 7

Stable/Secure % of Votes: 85.7

Individual Certainty	Notes
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6 Apparently Secure- Local with widespread, mostly very small colonies in northern NJ with some new colonies found in the southern part of the state. While the population remains small, there seems to be no evidence that it is declining.

6 Apparently Secure- I have seen no evidence either in the literature, personally or presented by other panelists that this local species is in decline. While it is true individuals may show up in one place and not be found the next year, there are a number of persistent colonies: Dismal Harmony Natural Area, Schermann-Hoffmann Sanctuary, Tatum Park, etc. To me this species doesn't belong with the other species we're classifying as Special Concern or rarer.

7 Apparently Secure. Thinly dispersed, but apparently has always been so. There is no persuasive evidence of decline—in fact reports seem to be increasing, whether from actual population increase or more widespread searching.

5 I go with those who say Apparently Secure, because it is widespread, and no definite threats have been identified. Rarity in itself not evidence of decline. I agree that it is likely to be underreported. This is another case where it seems inappropriate to confer a status like threatened or endangered on a species that is not globally threatened. There seems no official reason to list it as SC

5 Apparently Secure- As with checkered white, I've decided to change my vote – this time from SC to Apparently Secure. I am not entirely comfortable with that vote (confidence level 5), but I will go along with the four voters from Round 3 as it seems we do not have the data to prove this species could fall quickly into trouble.

8 Apparently Secure. Although this species warrants further study.

Average Certainty: 6.2

Other NO VOTES

Consensus (85%) Reached? **Yes**

SPECIES: Dotted Skipper

Hesperia attalus

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	5	0	0	1	0	5.67
Round 2	1	3	3	0	0	0	0	6.29
Round 3	1	5	1	0	0	0	0	6.14
Round 4	1	5	1	0	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	5	0	0	1	0	5.67

Justifications:

Endangered

Individual Certainty	Notes
8	All historic populations have been extirpated except Double Trouble State Park and Lakehurst. Colliers Mill might be gone also? New records at Franklin Parker Preserve, however, they are tiny populations soon to be extirpated. This may be the second rarest skipper in the state of NJ that has not been potentially extirpated yet right after arogos skipper.

Average Certainty: 8

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
4	Historically very rare and local. As of 1997 Gochfeld and Burger† state “Although highly local, it may occur over most of the Pine Barrens.” Only three records in 2013, all at Colliers Mills WMA (Burlington County). This species continues in small numbers. Other colonies may exist in the Pine Barrens.
5	Uncommon and local. Population should be monitored.
4	Scattered sightings
8	Highly localized species in southern NJ.

5 The SJBFB Log has only 24 reports of this species, about half from Franklin Parker Preserve by Stephen Mason during his multiyear survey there. The high counts on the log are two reports of four individuals; most are reports of one or two individuals. I'd vote for Species of Special Concern. My confidence level is only 5 because this is a species of the "heart" of Pine Barrens where observers do not go often enough, and so I do not believe that we know this species very well.

Average Certainty: 5.2

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
Not Indicated	No Opinion

Average Certainty: Not calculated

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	3	3	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	All historic populations have been extirpated except Double Trouble State Park and Lakehurst. Colliers Mill might be gone also? New records at Franklin Parker Preserve, however, they are tiny populations soon to be extirpated. This may be the second rarest skipper in the state of NJ that has not been potentially extirpated yet right after arogos skipper. Fire suppression is resulting in habitat for this skipper species.

Average Certainty: 8

Threatened

% of Votes: 42.9

Individual Certainty	Notes
5	Apparently very few reports in recent years.
5	The combination of comments from other voters and the few records on the SJBFB Log has led me to change my vote from Special Concern to Threatened. The SJBFB Log has only 24 reports of this species in six years, about half from Franklin Parker Preserve by Stephen Mason during his multiyear survey there. The high counts are two reports of four individuals; most are reports of one or two individuals.
6	Apparently few populations, all with low numbers.

Average Certainty: 5.33

Special Concern

% of Votes: 42.9

Individual Certainty	Notes
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6	Not enough evidence on specific threats for T or E but distribution restricted to pine barrens and not common.
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6	Uncommon and local. Probably underreported sites in the Pinelands. Additional sites would be found with more extensive searching.
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8	Same assessment as per Round 1 comments.
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Average Certainty: 6.67

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.14

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
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8	<p>ALL historic populations have been extirpated (!!) except Double Trouble State Park and Lakehurst. Colliers Mill might be gone also? New records at Franklin Parker Preserve, however, they are tiny populations soon to be extirpated. This may be the second rarest skipper in NJ that has not been extirpated yet right after arogos skipper. Fire suppression is resulting in habitat loss for this skipper species.</p>
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8	<p>Comments made for SOC didn't seem to have any data suggesting it should be SOC. Comment made for threatened were "few reports" and "few populations." How many populations do you know of?</p>
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SJBF Log cited in Round 2 is useful stating half of the 24 reports are from FPP but as mentioned, they are tiny populations soon to be gone.

Average Certainty: 8

Threatened

% of Votes: 71.4

Individual Certainty	Notes
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5	A skipper definitely in trouble. In view of most of the comments from Round 2, I am inclined to stay with Threatened.
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7	<p>I would try to persuade those who voted for SC to change to E or T with the following points: (1) As I mentioned for Leonard's Skipper, I don't believe that a SPECIFIC threat needs to be identified for an obviously declining species to be classified as E or T, because in most cases we are unlikely to ever discover the reason(s) for the decline of a given species. And (2) I don't think we should vote based on what we think would be found if only more searching were done. Are many species "probably underreported"? Sure—so much land is either private or otherwise inaccessible that we can never know what MIGHT be there. It seems to me to be reasonable to base our evaluation only on what is actually known about a species' current numbers and distribution. It would be unlikely that a species that is declining or has disappeared from known locations has a thriving population in some unknown spot, since any factors causing its decline are probably widespread.</p>
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Individual Certainty	Notes
5	Uncommon and local in the Pinelands. Colliers Mills colony is still extant but small. This species appears to be on a similar downward vector as Leonard's Skipper. The reason for this decline is unclear since habitat is still basically intact.
8	We have consensus to list and I would go for the middle of the road with Threatened. I do not think that this species is in as bad a shape as Leonard's but I was unable to find it in several historic locations in the Pinelands this year.
6	Last Round: 1 for E, 3 for T, 3 for SC. I am keeping my vote at T which seems the compromise vote. Data noted from SJBFB log last Round.

Average Certainty: 6.2

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
4	I am sticking to SC because I don't accept the premise that small (observed) population size is good evidence of imminent disappearance with these mobile species that feed on common plants. NatureServe: In some places the species is very sparsely distributed over thousands of hectares (densities probably <1/ha) making estimation impossible. At other places adults are rather concentrated at least for nectaring. ... fire suppression and probably in some places excessive prescribed burning. Threat probably ...low or moderate at New Jersey occurrences. Narrow habitat specialists like this form a group that seem to be at risk from poor land management that attempts to prevent disturbance rather than manage it. Possibly nonnative plants are part of the problem and obsessive roadside mowing and use of cool season grass. These are issues that DEP could help deal with, in cooperation with private conservation groups and the Pinelands Commission, if it chose to do so.

Average Certainty: 4

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	Going against the majority and sticking with Endangered. This species could be the rarest after Argos. All the historic populations are extirpated. The few areas where they remain are in low numbers and are at the risk of being extirpated. They were found at FPP a few years ago, but the past two years, they have not been seen. Another recent location, Colliers Mill has also been inconsistent when finding them. All this meaning, even when they are found, they aren't in high numbers. Any butterfly that has had dramatic range reduction should be endangered. I cannot express enough that we have to look at their historic ranges and see if they still occur in places or not. This is a species that has clearly lost a high percentage of their original range.

Average Certainty: 8

Threatened

% of Votes: 71.4

Individual Certainty	Notes
6	<i>A skipper definitely in trouble: only one, known, reasonably reliable location and that with only small numbers. I will stay with "Threatened".</i>
5	<i>Uncommon and local in the Pinelands. Colliers Mills colony is still extant but small. This species appears to be on a similar downward vector as Leonard's Skipper. The reason for this decline is unclear since habitat is still basically intact.</i>
7	<i>The majority of panelists have settled on Threatened, and I will stay there.</i>
6	<i>Threatened: Keeping my vote for T (would move to E) for reasons stated in Round 2. This is a hard-to-find butterfly apparently surviving in very few colonies and possibly now gone from Parker Preserve (no reports from there on SJBFB log 2012:2014).</i>
8	<i>Threatened. This species is very restricted in NJ and in need of protection and further research.</i>

Average Certainty: 6.4

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
4	<p>I am sticking to SC because I don't accept the premise that small (observed) population size is good evidence of imminent disappearance with these mobile species that feed on common plants.</p> <p>NatureServe: In some places the species is very sparsely distributed over thousands of hectares (densities probably <1/ha) making estimation impossible. At other places adults are rather concentrated at least for nectaring.</p> <p>... fire suppression and probably in some places excessive prescribed burning. Threat probably ...low or moderate at New Jersey occurrences.</p> <p>Narrow habitat specialists like this form a group that seem to be at risk from poor land management that attempts to prevent disturbance rather than manage it. Possibly nonnative plants are part of the problem and obsessive roadside mowing and use of cool season grass. These are issues that DEP could help deal with, in cooperation with private conservation groups and the Pinelands Commission, if it chose to do so.</p>

Average Certainty: 4

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: Leonard's Skipper

Hesperia leonardus

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	2	2	3	0	0	0	0	6.43
Round 2	3	3	1	0	0	0	0	6.71
Round 3	3	4	0	0	0	0	0	6.43
Round 4	2	5	0	0	0	0	0	6.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	2	3	0	0	0	0	6.43

Justifications:

Endangered

Individual Certainty	Notes
8	Almost all historic populations have been <u>Extirpated</u> . Known locations (one or two?) should be monitored consistently. Some years this species has not been seen at these known locations.
8	This species has suffered massive declines in NJ over the last several years with several formally large colonies lost. It has always been highly localized in northern NJ but has become even rarer over the last several years. The cause of the decline is not clearly understood.

Average Certainty: 8

Threatened

Individual Certainty	Notes
7	Has recently disappeared from several sites, both in northern and southern NJ. Only two sites are known to support more than three individuals. Grassland habitat is highly vulnerable to development/agricultural practices.
5	Like Georgia satyr, this species has a number of South Jersey observers worried. The state's current status is "Species of Special Concern," and my understanding is that it is somewhat more numerous in northwestern NJ. In South Jersey it seems to be struggling to hang on. The SJBFB Log has only 18 records of the species in our six years and 10 of those come from the first two years and from a single site (TNC's Mannumuskin River Preserve) where the species has not been reported by any observers since 2009. At the moment the one apparently active site is the restricted access area near the Atlantic City Airport and, as far as we know, numbers there are low. If the Mannumuskin colony has collapsed (as suggested by multiple "negative data" trips there by a number of observers over the last four years), this seems a species in serious trouble in South Jersey. Gochfeld and Burger suggested in 1997, "It should be considered for listing as Threatened." Its status seems to be even weaker today. (The "large colony in Cumberland County [up to 75 seen a day]" that B&G mention was presumably the Mannumuskin colony. I am voting for Threatened for this species – although I realize I may be outvoted/overruled by those who know the species better in the northern half of the state and feel more confident about it.

Average Certainty: 6

Special Concern

Individual Certainty	Notes
7	Once widespread but apparently local and never common, Leonard's Skipper is no longer found in most of the state. Recorded in single digits in 2013, this species continues precariously. Since the collapse of the Manumuskin River Preserve (Cumberland County) population in the last decade, there remain no known strongholds, leaving only one known small colony in Sussex County. However, individuals continue to be found sporadically at various other locations in NW New Jersey.

5 Usually never found in large numbers. Sites where it's been found recently seem to be decreasing.

5 Restricted habitat – airports etc. Need to be searched for in previously known sites, e.g. Woodbine airport

Average Certainty: 5.67

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	3	3	1	0	0	0	0	6.71

Justifications:

Endangered **% of Votes: 42.9**

Individual Certainty	Notes
8	See round 1 panelist comments for this species. All historic populations have been extirpated. Current known populations still make it difficult to find individuals. Habitat for this species is threatened by development. Many butterfly watchers have searched for this species in Cape May and Cumberland Counties but have not been successful to locate new populations.
8	South Jersey down to one colony (and we don't know why Manamuskin disappeared), North Jersey has only 2 known substantial colonies. Mainly singles at a few other sites. Appears to be in very serious trouble.
8	Same assessment as per Round 1 comments.

Average Certainty: 8

Threatened **% of Votes: 42.9**

Individual Certainty	Notes
6	Recorded in single digits in 2013, this species continues precariously. Since the collapse of the Manumuskin River Preserve population in the last decade there remain no known strongholds, leaving only one known small colony in Sussex County. However, individuals continue to be found sporadically at various other locations in NW New Jersey.
5	The comments from other voters and the recent history of this species in South Jersey indicate that this species deserves at least Threatened status (if not Endangered). The SJBFLog has only 18 records in our six years and 10 of those come from our first two years and from a single site (TNC's Manumuskin River Preserve) where the species has not been reported by any of our observers since 2009, despite repeated excursions. The one known active site is the restricted access area near the Atlantic City Airport and, as far as we can tell, numbers there are low. (My confidence level only 5 because this species may rate Endangered.)

6 Only several reliable small colonies in Sussex County are now known to me. Mostly 2:3 individuals max seen at any site and it appears that there has been a steep decline in the number of sites where found in the past decade. What is troubling is the source for this decline since habitat seems to be basically intact.

Average Certainty: 5.67

Special Concern**% of Votes: 14.3**

Individual Certainty	Notes
6	Clearly SC. Could be T or even E if definite threats could be identified and an accurate number of remaining colonies determined. Remains widespread if rare at least until another year or two of surveys come up as low as 2013. In any case, without specific threats, it is not clear what management could be tried.

Average Certainty: 6

Stable/Secure **NO VOTES****Other** **NO VOTES**Consensus (85%) Reached in Round 2? **NO****Round 3**

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	3	4	0	0	0	0	0	6.43

*Justifications:***Endangered****% of Votes: 42.9**

Individual Certainty	Notes
7	I think it is legitimate to recognize a species as E or T even when we don't know what the specific cause(s) of its decline may be, which is the case here. Except for Northern Metalmark declining most likely due to (manageable!) habitat loss, and Two-spotted Skipper possibly due to succession, we may never know the cause(s) of decline for any of these species.
8	I stick with Endangered because of my previous comments in Round 2 along with those who else voted Endangered. Panelists who voted threatened, I feel had reasons to go with Endangered also. My main point in Round 2 was that many historic populations are now extirpated. When populations are declining that quickly over time and no one knows why but only can speculate loss of habitat, etc that species should be on the lookout immediately. "records are from every section of the state." Smith 1910. This is obviously NOT the case anymore. How is this species NOT threatened?
6	Round 2 had 3 voters for E, 3 for T, and 1 for SC. I am moving my T vote up to E after reading other panelists' comments and thinking more about the collapse of this species in southern NJ over past 5:10 years. I think we may be about to lose this species in both ends of the state. (I was leaning toward E last time, now more convinced.)

Average Certainty: 7

Threatened**% of Votes: 57.1**

Individual Certainty	Notes
6	Recorded in single digits in 2013, this species continues precariously. Since the collapse of the Manumuskin River Preserve population in the last decade there remain no known strongholds, leaving only one or two reliable colonies in Sussex County. However, individuals continue to be found sporadically at various locations in northern NJ, and a colony remains in southern NJ. Only several reliable small colonies in Sussex County are now known to me. Mostly 2:3 individuals max seen at any site and it appears that there has been a steep decline in the number of sites where found in the past decade. What is troubling is the source for this decline since habitat seems to be basically intact. If

6 ranked as Endangered, it is not clear to me what immediate action one could take to prevent further decline.

8 We have consensus to list and due to recent declines I would go higher than SC. T is the middle of the road for everyone.

4 I would go along and give it an uncertain T, which I would be more sure of if definite threats could be identified and an accurate number of remaining colonies determined. NatureServe says, "This is another of many declining species of open, dry, grassy habitats in the Northeast...It is not clear whether habitat changes alone suffice to account for decline."
Remains widespread if rare at least until another year or two of surveys come up as low as 2013.

Average Certainty: 4.75

Special Concern NO VOTES

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	2	5	0	0	0	0	0	6.71

Justifications:

Endangered % of Votes: 28.6

Individual Certainty	Notes
8	To my knowledge, seen at only 2 locations in North Jersey this year—one of which had only a single individual. This species is in desperate trouble. I don't think the criterion for E should be a single location with an idling bulldozer lurking on the perimeter, which seems to be what some panelists are waiting for, for this and other species.
	Sticking with Endangered because of previous comments in Round 2 & 3. Panelists who voted threatened, I feel have reasons to vote for E also.
8	Historic populations are now extirpated. When populations are declining that quickly over time and no one knows why but only can speculate loss of habitat, etc. that species should be on the lookout immediately. "records are from every section of the state." Smith 1910. This is OBVIOUSLY NOT the case anymore. This species SHOULD be listed as Endangered.

Average Certainty: 8

Threatened % of Votes: 71.4

Individual Certainty	Notes
6	While there are no longer any known strongholds of this species, only a small number of reliable sites in Sussex County and possibly another in southern NJ remain. The only one of those I visited this year appeared to have done somewhat better than last. Also, individuals continue to be found sporadically at various other locations. Only several reliable small colonies in Sussex County are now known to me. Mostly 2:3 individuals max seen at any site and it appears that there has been a steep decline in the number of sites where found in the past

6 decade. What is troubling is the source for this decline since habitat seems to be basically intact. Would consider moving up to Endangered but doesn't seem to fit in with other species we've already put in that category. Also in the past small colonies of this species have shown a remarkable ability to persist for years at low levels.

4 I would go along and give it an uncertain T, which I would be surer of if definite threats could be identified and an accurate number of remaining colonies determined. NatureServe says, "This is another of many declining species of open, dry, grassy habitats in the Northeast...It is not clear whether habitat changes alone suffice to account for decline." If we agree on threatened, can we agree on what should be done to protect and restore it? How about more fire and cutting? How many are willing to go along with efforts to restore the southern NJ landscape to what it looked like 100 years ago, when these species were apparently common?

7 THREATENED. I am bumping my vote down from E only in the hope that we will get consensus. All voters seem to have agreed last round that this species is in serious trouble: T or E. We are apparently very close to losing this species in southern NJ – only one colony left in existence as far as data from the SJBF log shows.

8 Threatened. This species is threatened and probably justifies being endangered. I will go with threatened to go with the majority.

Average Certainty: 6.2

Special Concern NO VOTES
Stable/Secure NO VOTES
Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: Referred to ENSAC

SPECIES: Bog Copper

Lycaena epixanthe

Consensus reached in Round 2

Proposed status: Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	1	5	0	0	0	5.86
Round 2	1	0	0	6	0	0	0	6

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	1	5	0	0	0	5.86

Justifications:

Endangered

Individual Certainty	Notes
8	All (?) known populations are abandoned cranberry bogs. These bogs are not being managed and getting overgrown. Cranberry host plants are being out competed and dying. Are there any areas that panelists know where they occur naturally? Habitats aren't being managed where these occur.

Average Certainty: 8

Threatened

NO VOTES

Special Concern

Individual Certainty	Notes
6	A survey of abandoned cranberry bogs would likely discover more locations for this species; assignment to any higher status should await results of such a survey.

Average Certainty: 6

Stable/Secure

Individual Certainty	Notes
5	Apparently Secure- Historically local and uncommon. Vulnerable to loss of cranberry bogs, especially abandoned ones. Small populations at Mashipacong Bog in Sussex County and Lakehurst Bog in Ocean County. Apparently a good population at Hunter's Mill Bog in Atlantic County. Possibly present in other Pine Barrens bogs not well covered.
5	Apparently Secure- Numbers of any colony can vary from year to year.
4	Apparently Secure seems reasonable. Good population numbers in multiple sites and more sites available, but unoccupied. Noted as sedentary, according to Nature Serve, so local populations ought to be monitored and currently unoccupied sites checked
7	Appears to be stable in NJ with a large distribution and habitat stable. NJ is also on the edge of its range. Apparently Secure because it appears to be declining in the southern portions of its range and this trend could expand.
6	Seems secure and fairly reliable at a number of sites in South Jersey. Regular reports on SJBFB Log from all five counties that have Pine Barrens bogs (all but Gloucester, Camden, and Salem). Numbers fluctuate annually and flight season is short, but that has always been the case, apparently.

Average Certainty: 5.4

Other

NO VOTES

Consensus (85%) Reached in Round 1? **NO**

Round 2

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	6	0	0	0	6

Justifications:

Endangered**% of Votes: 14.3****Individual Certainty** **Notes**

- 8 I stick with this species should be endangered and my confidence level is still 8 because all populations are known from cranberry bogs. These bogs are being overgrown and the host plant, American cranberry, is being outcompeted by other plants.
- 8 Realize that this species should NOT be dependent on cranberry bogs to survive. It is great they are using them, but in reality, they should be using cranberry on the sides of streams in the Pine Barrens. Thus, they are not Apparently Secure if they are relying on a habitat that is not natural to them. Yes, a survey of abandoned cranberry bogs would be great, but a survey of Pine Barren streams with an abundance of American cranberry growing on the banks would be the best thing to do.

Average Certainty: 8**Threatened** **NO VOTES****Special Concern** **NO VOTES****Stable/Secure****% of Votes: 85.7****Individual Certainty** **Notes**

- 4 Apparently Secure but vulnerable to loss of cranberry bogs. Small populations at several know sites. Undiscovered populations possible in Pine Barrens.
- 6 Apparently Secure seems reasonable. Good population numbers in multiple sites and more sites available, but unoccupied. Noted as sedentary, according to Nature Serve, so local populations ought to be monitored and currently unoccupied sites checked
- 6 Apparently Secure- Seems fairly reliable at a number of sites in South Jersey. Regular reports on SJBFB Log come from all five counties that have Pine Barrens bogs (all but Gloucester, Camden, and Salem) and from at least a dozen different bogs. Numbers fluctuate annually and flight season is short, but that has always been the case, apparently.
- 6 Apparently Secure- Widespread especially in abandoned manmade cranberry bogs in mostly southern NJ. A systematic survey would most likely identify many more sites.
- 5 Apparently Secure- I defer to the observations of those more familiar with South Jersey populations.
- 7 Same assessment as per Round 1 comments.

Average Certainty: 5.6**Other** **NO VOTES**Consensus (85%) Reached in Round 2? **YES****SPECIES: *Bronze Copper******Lycaena hyllus******Consensus reached in Round 2******Proposed status: ENDANGERED*****Tally and Overall Certainty per Round**

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	4	2	1	0	0	0	0	6.29
Round 2	6	0	1	0	0	0	0	Not calc

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	4	2	1	0	0	0	0	6.29

Justifications:

Endangered

Individual Certainty	Notes
5	Only appears to be a couple of metapopulation with small numbers in the state. Wetland habitat loss may be responsible.
8	Species already on NJDEP endangered list. Historic populations have been lost
8	Currently highly localized in NJ and probably vulnerable to sea level change in Southern NJ. Widespread population decline throughout NJ though the recent populations found in Northern NJ are a good sign that the species is still hanging on that portion of the State.
6	Classified as Endangered in the state at the moment. Our log data confirms this status, in my opinion. It's an eye-catching butterfly, easy to ID, and much sought-after, but it is very hard to find anywhere outside its best-known colony. The SJBF Log has compiled 33 records in our six years, but all but a handful come from that single colony at Mannington Marsh: and we do not have one double digit count of the species over our six years.

Average Certainty: 6.75

Threatened

Individual Certainty	Notes
6	Local, never common, declining elsewhere though apparently recently holding steady in New Jersey. A few records almost annually from the Wallpack River valley in Sussex County. Better numbers from Cumberland County. Currently classified as Endangered, it is at very least Threatened.
7	Occurrence in northern NJ is very erratic, with no reliable colony site known; rarely is more than a single individual observed.

Average Certainty: 6.5

Special Concern

Individual Certainty	Notes
4	Not demonstrably endangered, given recent sightings of large numbers and further county and watershed records. Little information on population dynamics, but listed as ephemeral (Nature Serve) This suggests it may be overlooked. Should be monitored at known sites to get idea of population persistence and further sites should be sought for. Special concern seems more justifiable than endangered or threatened

Average Certainty: 4

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	6	0	1	0	0	0	0	Not calc

Justifications:

Endangered

% of votes: 85.7

Individual Certainty	Notes
6	Highly localized and subject to habitat loss. A very few records in most years spread over a small number of locations in both northern and southern NJ.
7	The SJBFB Log has compiled 33 records of this species in six years, 28 of them from the single, well-known colony at Mannington Marsh in Salem – there is no double digit count of the species over six years. (The other five records come from a single site in Cumberland County, found just last year.) First round comments from other voters add to my confidence that this is a very troubled species in the state.
8	All comments from round 1 about why this species should be listed as endangered back up my response and confidence.
5	Only appears to be a couple of metapopulation with small numbers in the state. Does seem to be found of disturbed, open wetlands where its host plant, Rumex, is found. Because of this colonies appear to be ephemeral.
7	No colony site known in North Jersey. Very scattered occurrences, almost always of single individuals.
8	Same assessment as per Round 1 comments.

Average Certainty: 6.83

Threatened

NO VOTES

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
Not indicated	Not demonstrably endangered, given recent sightings of large numbers and further county and watershed records. Little information on population dynamics, but listed as ephemeral (Nature Serve) This suggests it may be overlooked. Loss of historical sites is not sufficient evidence of endangerment, since new populations may have appeared and remained undiscovered. Should be monitored at known sites to get idea of population persistence and further sites should be sought for. Special concern seems more justifiable than endangered or threatened.

Average Certainty: Not Calculated

Stable/Secure

NO VOTES

Other

NO VOTES

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Georgia (Helicta) Satyr

Neonympha helicta

Consensus reached in Round 3

Proposed status: THREATENED

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	3	2	0	1	0	0	5.71
Round 2	1	5	1	0	0	0	0	6.29
Round 3	1	6	0	0	0	0	0	6.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	3	2	0	1	0	0	5.71

Justifications:

Endangered

Individual Certainty	Notes
7	Further research needs to be conducted to actually determine what species of "Georgia satyr" occurs in NJ. Is it a distinct species, is it a subspecies, do we have two species, etc? Regardless, the "Georgia satyr" that does occur in the NJ Pine Barrens is rare, mostly because of its preferred wetland savannahs habitats are being grown in with fire suppression.

Average Certainty: 7

Threatened

Individual Certainty	Notes
6	Currently know from only a few sites, but surveys of suitable habitats might indicate that it is more widespread. Sedge meadow habitat vulnerable to succession.
8	This species is complicated and some sources list it as being the Helicta Satyr (<i>N. helicta</i>) in NJ (NatureServe has the listed this way). The two species appear to be poorly defined and they are not clearly separated in the Carolinas where both species occur. They are likely to be just one species and NJ's populations could potentially be a unique subspecies. The Georgia Satyrs found on Ft. Dix appear to be double brooded while most of the other NJ populations only have a single brood and the individuals of the different populations appear to be indistinguishable (D. Sweitzer personal communication). This species is very restricted and the NJ Pinelands is isolated from the rest of the range of the species.
	Several observers I know are worried about this species. Its current state status of "Species of Special Concern" may be optimistic. It has apparently declined since Gochfeld and Burger (1997) when they noted it was "sometimes common in abandoned cranberry bogs." That seems no longer the case, at least in areas where observers have access. Only 13 records in last six years, all from a single county (Ocean), and 11 of them from the Lakehurst Bog, with the highest count being 6 individuals on 6:17:10. No records from Parker Preserve, by contrast, with its many abandoned cranberry bogs and where Stephen Mason conducted an intensive survey for butterflies over several years, ending just a couple of years ago. Perhaps this species is

5 doing well in areas that our observers have not explored – e.g. Fort Dix or possibly in the limited access areas of the wetlands inside the Warren Grove Bombing Range Area. But I worry that may not be the case and, unless more knowledgeable observers overrule me, I'd like to vote for T for this species. If the New Jersey Pine Barren population is a separate species as Gochfeld & Burger (also Cech & Tudor 2005; and others) have suggested, then a designation of T for our NJ population seems to me even more justifiable.

Average Certainty: 6.3

Special Concern

Individual Certainty	Notes
5	Historically this species may have been more common in the mid: 20th century than today†. Currently it is considered of Special Concern and is highly local but occasionally common. It is confined to the Pine Barrens, mostly in abandoned cranberry bogs (though active cranberry bogs may not get much coverage). Only two individuals were reported in 2013 (from separate southern NJ sites). This species continues to be of Special Concern.
5	Rare and local in only Burlington and Ocean counties.

Average Certainty: 5

Stable/Secure

NO VOTES

Other

Individual Certainty	Notes
4	Unknown: Needs more thorough surveys in the right habitats

Average Certainty: U: 4

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	5	1	0	0	0	0	6.29

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	As many other butterflies, this species is rare and endangered because of the loss of its known habitat, wetland savannahs. Lack of fire is resulting in a decline in these habitats and existing habitats are being overgrown through succession. I have extensive experience in Pine Barren cranberry bogs and this should be endangered. As with the bog copper, this species should not be dependent on cranberry bogs and instead reliant on wetland savannahs. It is never "occasionally common" unless it has an outbreak year like other species. Host plant is known among caterpillar farmers, but have not been published.

Average Certainty: 8

Threatened

% of Votes: 71.4

Individual Certainty	Notes
	Currently known from only a very few sites. Apparently has declined strongly with very few records in recent

6 years.

This species has clearly declined since Gochfeld & Burger, 1997. The SJBF Log has only 13 records in our six years, all from a single county (Ocean), with 11 of them from the Lakehurst Bog, with the highest count being just 6 individuals on 6:17:10. We have no records from Parker Preserve, despite its many abandoned cranberry bogs, and where an intensive survey for butterflies was conducted by the Philadelphia Academy of Sciences over several years, ending just a couple of years ago.

Rare and local in only Burlington and Ocean counties. Principal site where it has been reported recently, Lakehurst, is subject to succession. Whether this is a separate species or subspecies or not, the NJ population is still physically separate from the rest of the range so should be considered to be at least threatened.

Another species vulnerable because of restricted range and narrow habitat affinity, plus inaccessibility of habitats makes it difficult to assess population status.

8 Same assessment as per Round 1 comments.

Average Certainty: 6.2

Special Concern

% of Votes: 14.3

Individual Certainty Notes

5 *SC because of restricted occurrence and lack of good population data and possible threat of habitat/host plant loss. Not enough clear evidence to go with T or E*

Average Certainty: 5

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	6	0	0	0	0	0	6.43

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty Notes

As many other butterflies, this species is rare and endangered because of the loss of its known habitat: wetland savannahs. Lack of fire is resulting in a decline of these habitats and existing habitats are being overgrown through succession. I have extensive experience in Pine Barren cranberry bogs and this should be endangered. As with the bog copper, this species should not be dependent on cranberry bogs and instead reliant on wetland savannahs.

8 How many panelists have been to a spot every year to see double digit numbers of this species?

Host plant is known among caterpillar farmers, but has never been published.

Average Certainty: 8

Threatened

% of Votes: 85.7

Individual Certainty	Notes
6	Due to the very small number of reports and at only one somewhat reliable site, this species is at least Threatened if not Endangered.
7	This species seems to meet all of the stated criteria for Threatened status.
5	Rare and local in only Burlington and Ocean counties. Principal site where it has been reported recently, Lakehurst, is subject to succession. Whether this is a separate species or subspecies or not, the NJ population is still physically separate from the rest of the range so should be considered to be at least threatened.
7	We have consensus to list and I feel it is higher than SC due to its restricted range in general.
5	I would change my opinion to T, because restricted occurrence and threat of habitat/host plant loss are plainly tied to the loss of open savanna habitats in the Pine Barrens. The NatureServe account clearly indicates what the threats are. This is a case where DEP could have a positive influence on management policies that would be of help to maintaining what was historically a more widespread and abundant species.
7	Agree with majority of voters from last round: declining species with limited, unreliable population = T.

Average Certainty: 6.2

Special Concern NO VOTES

Stable/Secure NO VOTES

Other NO VOTES

Consensus (85%) Reached in Round 3? **YES**

SPECIES: Mitchell's Satyr

Neonympha mitchellii

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	0	0	0	2	4	7
Round 2	1	0	0	0	0	0	6	7

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	0	2	4	7

Justifications:

Endangered

Individual Certainty	Notes
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7 Maintain Endangered status in event colony is discovered though highly unlikely. Actually Extirpated. It is still a federally listed species in the event a colony were ever rediscovered if the majority was in favor of listing it as Extirpated.

Average Certainty: 7

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
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8 Not Applicable: Extirpated in the mid-1980s†: Formerly rare and local in NW New Jersey. Nearest colony in South Carolina though Cech and Tudor‡ mention “reports of uncertain type” in SW Virginia.

6 Not Applicable: Extirpated.

8 Not Applicable: Extirpated.

6 Not Applicable: Probably Extirpated.

Not indicated No Opinion

Not indicated No Opinion

Average Certainty: NA: 7

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	0	0	6	7

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
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7 *Probably extirpated but there could still be a small colony hidden somewhere in their preferred habitats. It is federally listed. If everyone voted extirpated and a new colony was found, this panel would not look so good.*

Average Certainty: 7

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 85.7

Individual Certainty	Notes
8	Not Applicable: <u>Extirpated</u>
5	Not Applicable: <u>Extirpated</u> . Gone over 30 years and not likely to recolonize, given distance to other populations.
7	Not Applicable: <u>Extirpated</u> .
7	Not Applicable: <u>Extirpated</u> . Unsuccessfully looked for in former habitat for decades.
8	Not Applicable: Not reported since 1985, but since by the time this list becomes official it WILL meet the 30 year requirement, I vote for Extirpated.
7	Not Applicable: Extirpated.

Average Certainty: 7

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Milbert's Tortoiseshell*

Nymphalis milberti

Consensus reached in Round 4

Proposed status: Not Applicable

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	1	0	1	3	1	5.8
Round 2	0	1	1	0	1	0	4	6.1
Round 3	0	0	2	0	0	0	5	6.29
Round 4	0	0	1	0	0	0	6	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
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Count	1	0	1	0	1	3	1	5.8
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Justifications:

Endangered

Individual Certainty	Notes
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5 There have been historic specimens collected from NJ. However, were these populations or strays? No recent records of this species has been found in NJ?

Average Certainty: 5

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
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6 Historically never common with almost no records in the last quarter of the 20th century. More recently very small numbers of reports, at least once several years in succession, followed by absences for several more years.

Average Certainty: 6

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
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4 Unknown: Small colonies seem to last only a few years. May be mostly a migrant and not a permanent resident.

7 Not Applicable: Highly erratic in occurrence; colonies occasionally become established but do not persist. NJ is on extreme eastern periphery of range. Unlikely to maintain itself as a permanent resident.

Not indicated No Opinion

7 No Opinion: This is a species where NJ is on the edge of its range and appears to be highly localized and uncommon in NJ.

Not indicated No Opinion

Average Certainty: U: 4

Average Certainty: NA: 7

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
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Count	0	1	1	0	1	0	4	6.1
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Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
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7 Simply need to figure out if old records/specimens over 50 years ago were populations or strays. Clearly, they are rare now but are these strays or strays from populations in NJ that are not known. Bottom line, the species is rare.

Average Certainty: 7

Special Concern **% of Votes: 14.3**

Individual Certainty	Notes
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6 Very small number of reports in the 21st century with at least two in 2013, and once several years in succession. While there were almost no records in the last quarter of the 20th century, it is difficult to say whether or not the species is declining.

Average Certainty: 6

Stable/Secure **NO VOTES**

Other **% of Votes: 71.4**

Individual Certainty	Notes
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5 Not Applicable: A clear G5/N5 species, even more marginal in NJ than *N. vau-album* and with no clear threats identified. No point in listing it. NA is best. Should not be considered indigenous to NJ.

6 Not Applicable: Agree with other voters who note that this species is not a permanent resident in the state.

5 Not Applicable: Nonresident. Small colonies seem to last only a few years. May be mostly a migrant and not a permanent resident.

7 This species is not a permanent resident, and despite sporadic occurrences of individuals and even small colonies, it is unlikely to become one, especially in light of climate change.

7 Unknown: Further study needed.

Average Certainty: 6

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	0	0	0	5	6.29

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern**% of Votes: 28.6**

Individual Certainty	Notes
6	Difficult to determine if species is declining or not in recent decades. This species could be a resident historically and def could be currently. If so, it should be listed higher than species of concern.
7	This species is on the edge of SC for me and I think warrants further targeted research. SC would put it on the conservation radar and help us work to prevent it from potentially needing a higher status later.
<u>Average Certainty: 6.5</u>	

Stable/Secure NO VOTES**Other****% of Votes: 71.4**

Individual Certainty	Notes
6	NOT APPLICABLE: In view of its very sporadic and scattered appearance in the state, this species is most probably not a permanent resident.
7	NOT APPLICABLE: Not a permanent resident.
5	NOT APPLICABLE: Nonresident. Small colonies seem to last only a few years. May be mostly a migrant and not a permanent resident.
7	In this case the logic that should apply has been applied by most responders, as was not the case with <u>Polygonia progne</u> . I can't see much difference, except that this one is not reported to be reproducing in the past few years. A clear G5/N5 species, marginal in NJ, with no clear threats identified. No point in listing it. NA is best. Should not be considered indigenous to NJ.
6	NOT APPLICABLE: I agree with the majority of voters in Round 2: not a proven resident.
<u>Average Certainty: 6.2</u>	

Consensus (85%) Reached in Round 3? **NO****Round 4**

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	0	0	0	6	6.29

*Justifications:***Endangered NO VOTES****Threatened NO VOTES****Special Concern****% of Votes: 14.3**

Individual Certainty	Notes
6	I see no citations on why this species is not a permanent resident. Any proof, I will easily change my vote. If not, keeping it at SC since numbers and populations aren't as they were 50+ years ago.
<u>Average Certainty: 6</u>	

Stable/Secure NO VOTES

Other

% of Votes: 85.7

Individual Certainty	Notes
6	Not Applicable: In view of its very sporadic and scattered appearance in the state, this species is most probably not a permanent resident.
5	Not Applicable: Nonresident. Small colonies seem to last only a few years. May be mostly a migrant and not a permanent resident.
7	Not Applicable: Not a permanent resident.
7	Not Applicable: In this case the logic that should apply has been applied by most responders, as was not the case with Polygonia progne. I can't see much difference, except that this one is not reported to be reproducing in the past few years. A clear G5/N5 species, marginal in NJ, with no clear threats identified. No point in listing it. NA is best. Should not be considered indigenous to NJ.
6	Not Applicable. I agree with the panelists who noted this seems a species not proven to be a permanent resident.
7	Not applicable. Probably not a resident and more data is needed to justify otherwise.

Average Certainty: 6.3

Consensus (85%) Reached? **YES**

SPECIES: Compton Tortoiseshell

Nymphalis vaualbum

Consensus reached in Round 2

Proposed status: SPECIAL CONCERN*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	4	0	0	3	0	6.2
Round 2	0	0	7	0	0	0	0	6

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	4	0	0	3	0	6.2

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
8	Historically very rare and local, though in the last part of the 20 th century its numbers seemed to have increased. More recently it has declined and since 2009 it has been very rare to absent. Currently, it might be best to consider it an occasional visitor from the north and possible rare breeder.
4	Uncommon but numbers down dramatically in last decade. Should be monitored going forward.
6	Steep decline in numbers within the past 10 years; unknown whether this is temporary or a trend. Climate change could be a factor.
6	No population studies have occurred with this charismatic species. Reliable populations do occur but hard to keep track of these populations are increasing or decreasing.

Average Certainty: 6

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
Not indicated	No Opinion
7	No Opinion: This is a species where NJ is on the edge of its range and appears to be highly localized and uncommon in NJ.
Not indicated	No Opinion

Average Certainty: **Not calculated**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	7	0	0	0	0	6

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 100

Individual Certainty	Notes
7	Steep decline in past decade and rare to absent most recently.
3	A clear G5/N5 species, marginal in NJ and with no clear threats identified. Hard to see much point in listing it. Not clear if SC is right or if NA is better, since it isn't clear that much could be done about it.
6	No records in SJBFL Log (2008:13) and only scattered reports in SNJ before 2008 (that I know of). This is not a resident of the Coastal Plain. Second-round vote is based on comments from first round comments by others who know this species better.
6	See round 1 panelists comments for species of concern.
6	Uncommon but numbers down dramatically in last decade. Should be monitored going forward.
7	Marked decline in numbers in recent years, with no obvious cause other than perhaps climate change.
7	Same assessment as per Round 1 comments.

Average Certainty: 6

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Giant Swallowtail

Papilio cresphontes

Consensus reached in Round 3

Proposed status: Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1								
Round 2	0	0	0	4	0	0	3	6
Round 3	0	0	0	6	1	0	0	6.4

Round 1

Species did not undergo first round assessment. Species added in Round 2 as per a panelist's request.

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	4	0	0	3	6

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure **% of Votes: 57.1**

Individual Certainty	Notes
7	Apparently Secure- (At least recently in northern NJ) Starting with a trickle of reports in 2006 and 2007 and an invasion in 2008, the population has continued to breed in the area and to grow. Now locally common. Smaller numbers also reported in southern NJ. We will need to see how this develops.
5	Apparently Secure- Uncommon and local but found in both north and south New Jersey. Numbers appear to be mostly stable.
7	Reappeared in 2006 and was seen in good numbers in 2008. Secure, and stable, if not still increasing. Very strong populations in limestone areas of Sussex and Warren counties.
7	Apparently Secure, expanding range. Habitat should be protected/managed to insure persistence of species in NJ which makes me wonder if it should have a SC status.

Average Certainty: 6.5

Other **% of Votes: 42.9**

Individual Certainty	Notes
4	Not Applicable: Eruptive species not properly considered an indigenous species to NJ?
5	Not Applicable: My understanding is that this has been considered only a stray species in NJ. It seems to fit that description on the Coastal Plain. The SJBFLog has only 26 reports in six years (and many of them repeats of the same individual.) Only from in one garden in Salem County has repeated sightings in multiple years. None of the host plants listed in Gochfeld and Burger occurs naturally on the Coastal Plain. Has this species become numerous enough in NNJ to deserve a different designation? Other panelists will know that better.
7	Not Applicable: Extirpated as a NNJ breeder. When currently occurs in the state, it is a stray.

Average Certainty: 5.33

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	6	1	0	0	6.4

Justifications:

Endangered **NO VOTES**
Threatened **NO VOTES**
Special Concern **NO VOTES**

Stable/Secure **% of Votes: 85.7**

Individual Certainty	Notes
7	Secure- Starting with a trickle of reports in northern NJ in 2006 and 2007 and an invasion in 2008, the population has continued to breed in the area and to grow. Currently with strong populations in Sussex and Warren Counties.
7	Secure- Over the past 8 years this species has become well established in limestone areas of NNJ, where host plant Prickly Ash seems also to be increasing. I observed 10 second-brood GS on an hour's walk at Kittatinny Valley SP in early August. It also strays widely to other areas (e.g., Bergen, Mercer, and Passaic counties), and also successfully uses Garden Rue as a host plant (as I can attest). Overwintering chrysalises obviously survived the severe winter of 2013:14, so there seems no reason to think Giant Swallowtail will not be resident in NJ for the reasonably long term.
6	Apparently Secure. This species is one of the few whose numbers are clearly recovering within the state from declines which were apparently caused by historic Gypsy Moth spraying. Clearly now breeding populations again in Sussex and Warren counties. Strong flier so should fill its historic range where its host plant, Prickly Ash, can be found.
5	I changed my vote to stable from NOT APPLICABLE. Looking at Smith 1910, he noted this species as <u>Papilio thaos</u> (king swallowtail) which doesn't occur this far north, thus he was seeing giant swallowtail. His reports are from New Brunswick and Trenton. I would like to vote species of concern but realize that it is unlikely with other panelists. They do not breed in SNJ. With climate change though, pushing a lot more individuals northward, this species will eventually become common.
8	We have consensus to not list. Only time will tell with this species. It would be interesting to do some genetic work to see where they came from.
6	Changing my vote from NA to Apparently Secure, based on the comments from panelists in Round 2 about its stable presence in North Jersey (it's an erratic species in South Jersey, with more sightings in 2014 – about a dozen – than in any year since 2007).

Average Certainty: 6.5

Other **% of Votes: 14.3**

Individual Certainty	Notes
6	UNKNOWN: Changing my vote to U. I don't think one can say with any certainty whether this is properly considered indigenous or eruptive. Time will tell, and there is no reason to consider it a likely candidate for listing.

Average Certainty: 6

Consensus (85%) Reached? **YES**

SPECIES: *White-M Hairstreak*

Parrhasius m-album

Consensus reached in Round 2

Proposed status: Stable

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1								
Round 2	0	0	1	6	0	0	0	6.14

Round 1

Species did not undergo first round assessment. Species added in Round 2 as per a panelist's request.

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	6	0	0	0	6.14

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 14.3**

Individual Certainty	Notes
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6 It is common throughout the state, but thinly dispersed. I feel it is threatened at some level, like all other leps that feed on oak, due to gypsy moth spraying.

Average Certainty: 6

Stable/Secure **% of Votes: 85.7**

Individual Certainty	Notes
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7 Apparently Secure- Uncommon to rare in northern NJ, more common in southern NJ. Apparently not declining.

4 Seems to be Apparently Secure at least, butterfly log shows widespread occurrence, about as common as some of the other hairstreaks – banded, striped.

7 Apparently Secure- In South Jersey this species remains an uncommon species, as it was designated on the CMBO Butterfly Checklist (and Gochfeld & Burger) in the 1990s. It is found fairly widely, however, especially in fall. Total reports per year range from low of 17 to high of 48; with more than 200 reports in six years. Individual counts generally are one or two, so it is never numerous.

6 Apparently Secure- Uncommon and local but widespread. Found on ridge-tops in NW part of state, but most common in Pinelands or Pinelands outliers.

7 Apparently Secure. Widely dispersed in North Jersey, but nowhere common—usually only a few, single individuals seen per year. More common in South Jersey.

6 Apparently Secure- widespread but often uncommon.

Average Certainty: 6.16

Other NO VOTES

Consensus (85%) Reached? **YES**

SPECIES: *Mustard (Eastern Veined) White*

Pieris oleracea

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	6.2
Round 2	0	0	0	0	0	0	7	6.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	6.2

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
5	Not Applicable: <u>Historical</u> or perhaps Hypothetical. No records in the past 45 years. Locally common in northern New York and New England.
6	Not Applicable : <u>Extirpated</u> if ever resident
8	Not Applicable: <u>Extirpated</u> . One specimen record, but probably never a resident.

- 5 Not Applicable: Probably Extirpated.
- Not indicated No Opinion
- 7 Not Applicable: Historic though it still occurs in Massachusetts. We were on very southern edge of range and it should be considered historic.
- Not indicated No Opinion

Average Certainty: NA: **6.2**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.43

Justifications:

- Endangered** NO VOTES
- Threatened** NO VOTES
- Special Concern** NO VOTES
- Stable/Secure** NO VOTES

Other **% of Votes: 100**

Individual Certainty	Notes
6	Not Applicable: <u>Extirpated</u>
5	Not Applicable: <u>Extirpated</u> , if it ever was indigenous. No records to support anything else.
7	Not Applicable: Agree with voters who note it is <u>extirpated</u> if it was ever a resident.
6	Not Applicable: Probably <u>extirpated</u> .
6	Not Applicable: <u>Extirpated</u> if ever resident
8	Not Applicable: Apparently <u>extirpated</u> since there are no records from the single known colony since 2005, but since it cannot meet the 30-year requirement I reluctantly settle for Endangered.
7	Same assessment as per Round 1 comments.

Average Certainty: **6.43**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: West Virginia White

Pieris virginiensis

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	7.2
Round 2	0	0	0	0	0	0	7	6.71

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	7.2

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

Individual Certainty	Notes
7	Not Applicable: <u>Historical</u> , possibly <u>Extirpated</u> : Common only in the central Appalachians‡. Formerly resident. Reported as rapidly declining in 1974†. No known recent records.
6	Not Applicable: <u>Extirpated</u> .
8	Not Applicable: <u>Extirpated</u>
8	Not Applicable: <u>Extirpated</u>
Not indicated	No Opinion
7	Not Applicable: <u>Historic</u>
Not indicated	No Opinion

Average Certainty NA: 7.2

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.71

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 100

Individual Certainty	Notes
7	Not Applicable: <u>Extirpated</u>
4	<p>NA <u>extirpated</u> seems reasonable, but with grounds for uncertainty. It appears that the listing question is whether the species has a chance of Re-colonizing NJ without human intervention, although it is not clear whether it has been absent for more than 30 years. If it has been less than 30 years, but it is clearly not here now, would it be E or SC or U? I find the instructions don't cover that case:</p> <p>"Clarification on when to rank a species (i.e. assign a status) vs. when to consider it "not applicable" (NA). Assign a conservation status[what status, if it is not now present?]: Species has historically occurred in NJ (was historically indigenous to NJ), but there have been no confirmed records for more than 30 years AND there remains some possibility of undetected occurrence and/or the species could Re-colonize from nearby states without directed purposeful human assistance. ("historic" in Biotics database).</p> <p>Not Applicable (NA) Species has historically occurred in NJ (was historically indigenous to NJ), but there have been no confirmed records for more than 30 years AND there is very little to no chance of Re-colonization without direct and purposeful human assistance. ("extirpated" in Biotics database). Species is not indigenous or should not be considered indigenous to NJ (i.e., NJ is not part of the spp.'s documented range). We have previously defined "indigenous" as regularly occurs in the state with temporal and geographic predictability."</p>
7	Not Applicable: No recent records. <u>Extirpated</u> .
7	Not Applicable: <u>Extirpated</u> .
6	Not Applicable: <u>Extirpated</u>
8	<u>Extirpated</u> . Apparently no documented records within the past 30 years, and unlikely to be rediscovered or to recolonize naturally.
8	Same assessment as per Round 1 comments.

Average Certainty: 6.71

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Gray Comma

Polygonia progne

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	1	1	0	0	3	1	6
Round 2	1	3	2	0	1	0	0	6.14
Round 3	1	4	1	0	0	0	1	6
Round 4	0	5	1	0	1	0	0	6.14

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	1	1	0	0	3	1	6

Justifications:

Endangered

Individual Certainty	Notes
6	Small population localized in one small area of Hunterdon County, where recently proven to be resident.
<u>Average Certainty: 6</u>	

Threatened

Individual Certainty	Notes
8	Discovery of a colony in Hunterdon County this year has changed the status of this species from very rare visitor to at least threatened breeder. Though the only known colony in state, it seems strong and the site is currently protected. Also it is within the possible range of the species as illustrated by Cech and Tudor.
<u>Average Certainty: 8</u>	

Special Concern

Individual Certainty	Notes
4	Normally very rarely reported within the state but colony found in Hunterdon County in 2013 which should be monitored going forward.
<u>Average Certainty: 4</u>	

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
5	Not Applicable: This species is <u>Extirpated</u> from NJ.
Not indicated	No Opinion
7	No Opinion: This is a species where NJ is on the edge of its range and appears to be highly localized and uncommon in NJ.
Not indicated	No Opinion

Average Certainty: NA: 5

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	3	2	0	1	0	0	6.14

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
7	New resident population found in 2013. Other than that, nowhere else? Regardless, it should be endangered because this is the only population known. Can't get much more rare than that.

Average Certainty: 7

Threatened

% of Votes: 42.9

Individual Certainty	Notes
8	One colony in the state, on a protected site. Management will be required.
5	Normally very rarely reported within the state but colony discovered in Hunterdon County in summer 2013 which should be monitored going forward. While new colony is on protected land, host plant (gooseberry) there appears to be subject to deer browse. Since this the only known colony in the state should be considered at least threatened.
6	Since the newly discovered population in Hunterdon Co. may occupy a larger area than currently known, I will switch from E to T. The known colony is on protected land, but there is little to stop collectors from working there.

Average Certainty: 6.3

Special Concern

% of Votes: 28.6

Individual Certainty	Notes
4	Colony reported just last year (2013) of this previously apparently extremely rare (nonresident?) species suggests either "Not Applicable" or "Special Concern" to me. Am voting for latter based on comments of other voters, and with the possibility that the colony is not an ephemeral one. (Q: how many individuals found at 2013 colony?)
7	Current status (known breeding colony) would seem to warrant listing and further study.

Average Certainty: 5.5

Stable/Secure **NO VOTES**

Other **% of Votes: 14.3**

Individual Certainty Notes

6 The existence of a newly founded/discovered colony can't be used to establish a status.

Average Certainty: 6

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	4	1	0	0	0	1	6

Justifications:

Endangered **% of Votes: 14.3**

Individual Certainty Notes

7 New resident population found in 2013. Other than that, nowhere else? Isn't that enough of a reason to be endangered when it used to be "locally common" 100 years ago? Can't get much rarer than having one population left. Period.

Average Certainty: 7

Threatened **% of Votes: 57.1**

Individual Certainty Notes

5 With only one colony known and only in the past two year a status of Threatened is appropriate, even though the site is protected and plans for management are being made. Future reduction to Special Concern may be possible if this colony remains stable.

6 An additional individual was observed this year, on Lockatong WMA, approximately 2 miles from the Frenchtown colony (and a 3rd was seen last year 3 miles away), suggesting that this species may be well distributed locally. This spring we discovered hundreds of the Ribes host plant at the original location, so if that plant is common throughout the area Gray Comma may be as well. Nevertheless its range within NJ, and its habitat affinity in terms of its host plant, both appear to be restricted enough to consider it Threatened.

5 Normally very rarely reported within the state but colony discovered in Hunterdon County in summer 2013 (max of 15 individuals in one day) which should be monitored going forward. While new colony is on protected land, host plant (gooseberry) there appears to be subject to deer browse. Since this the only known colony in the state should be considered at least threatened.

8 There is consensus to list this species and I will go with the middle of the road approach and say threatened but on the low end of that spectrum.

Average Certainty: 6

Special Concern **% of Votes: 14.3**

Individual Certainty Notes

5 Another species that drew wide range of responses in Round 2. I am staying with SC based on comments from others that suggest the one colony very recently reported might be ephemeral. Would like to hear more about the numbers at that colony and whether it was active in 2014. In the meantime, the comment for NA from another panelist, "The existence of a newly found colony can't be used to establish a status," has me leaning toward NA.

Average Certainty: 5

Stable/Secure NO VOTES

Other % of Votes: 14.3

Individual Certainty	Notes
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6 The existence of a newly founded/discovered colony does not justify a status. This seems to be a peripheral population of a rather vagrant species that is demonstrably secure globally. That is not the type of situation that justifies T, E or SC. In my view, those categories apply where official protection on a statewide basis is actually or potentially needed.

Average Certainty: 6

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	5	1	0	1	0	0	6.14

Justifications:

Endangered NO VOTES

Threatened % of Votes: 71.4

Individual Certainty	Notes
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6 The colony discovered 2013 remains in 2014. Though the site is on protected public land, threatened status would seem appropriate until it becomes clear that the colony will survive.

5 Normally very rarely reported within the state since NJ is on the edge of its range but locally widespread colony discovered in Hunterdon County in summer 2013 (max of 15 individuals in one day) which should be monitored going forward (a max of 4 individuals in one day found in 2014). While main part of new colony is on protected land, host plant (gooseberry) there appears to be subject to deer browse. Since this the only known colony in the state should be considered at least threatened.

6 The Hunterdon Co. colony was active this year, but fewer individuals were observed. The fact that there are historical records from Hunterdon Co. (Shapiro 1966) and elsewhere in the Delaware Valley suggest that this may be a remnant population rather than a newly established one. (Some panelists have suggested that a species newly established in the state is not deserving of protection.) Citations in Gochfeld and Burger indicate that Gray Comma was formerly much more widespread in the state (especially in the north), although scarce and local.

6 Will lower my status to T from E. Round 3 data is sufficient. It should be listed either way.

Threatened seems appropriate considering its rarity and more research should be conducted to determine its

8 status in NJ.

Average Certainty: **6.2**

Special Concern

% of Votes: 14.3

Individual Certainty Notes

5 *Special Concern. I am afraid I will be the odd voter out on this one, voting for SC rather than T. I do not think we have enough data on this species to call it Threatened. I think we should save that designation for species whose presence in the state has been proven to be steadier over the years than this species has proven to be so far.*

Average Certainty: **5**

Stable/Secure NO VOTES

Other

% of Votes: 14.3

Individual Certainty Notes

7 *Moving toward the middle, I'd agree to UNKNOWN*

Average Certainty: **7**

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: Checkered White

Pontia protodice

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	2	2	0	0	0	2	6
Round 2	1	1	2	0	1	0	2	6.14
Round 3	1	0	2	0	1	0	3	6.71
Round 4	0	1	0	0	2	0	4	6.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	2	2	0	0	0	2	6

Justifications:

Endangered

Individual Certainty Notes

8 Species already on the NJDEP threatened list. New populations have been found in Salem County. In a recent year there was a huge emergence of these populations.

Average Certainty: 8

Threatened

Individual Certainty	Notes
8	This species is still highly restricted to two populations and vulnerable within NJ. It has shown that it can be highly eruptive after the population growth in Southern NJ over the last several seasons.
5	This species is currently classified as Threatened (I believe) and the SJBFB Log data support that status. The SJBFB Log had only 2 records over our first four years, 2008:2011, then a burst of 34 records in 2012 and 13 in 2013. We had multiple double digit single: day counts in both those years, but sites seem relatively few, and observers following up earlier reports by driving to the area to see this unusual species may have amplified the numbers (by multiple observations). Most reports are from Salem, far fewer from Cumberland. Confidence level undermined by lack of knowledge of the recent sites: are these old stable colonies that our observers simply overlooked earlier (and where the species will continue to appear) or are recent finds better understood as erratic/unpredictable fluctuations of scattered populations that could be eliminated if things go wrong for a year or two? Gochfeld & Burger 1997 note that the species has undergone "a dramatic decline over the past century, particularly in the last fifty years."

Average Certainty: 6.5

Special Concern

Individual Certainty	Notes
4	The discovery of a number of colonies in southern NJ seems to indicate that this species may be better off than we thought. But it still bears monitoring.
6	Historically common, now rare. Occasional visitors to Sandy Hook from Jamaica Bay, NY area. No recent reports from Newark Airport site. More records from Salem and Cape May Counties, but still mainly small numbers.

Average Certainty: 5

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
7	Not Applicable: Peripheral in NJ, so (with the exception of Newark Airport—and not certain if still extant there) its occurrence here is not regular or predictable. It has recently been reported from Salem County, but it is too soon to determine whether this is an established population.
4	Not Applicable: Although I have only one specimen in collection from 1990s:2000s and have only personally seen it once, SJBFB Log has multiple records from 2012:2013, documented by photographs. This species is not threatened by habitat loss; the factors affecting its irregular appearance are related to direct and indirect competition (Nature Serve). NA applies because its appearance in New Jersey is too unpredictable for a definite status.

Average Certainty: 5.5

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
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Count	1	1	2	0	1	0	2	6.14
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Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	<p>One panelist quoted "Historically common, now rare" and another quoted Burger and Gochfeld "a dramatic decline over the past century..."</p> <p>It is great new populations were found of this species and they can have eruption years (like any other species of insect) but this species should be endangered because it used to be common and now is rare. Period.</p> <p>Remember, we need to realize the status of these species a century ago or half a century ago, where there is very little literature on. We cannot just go by our own memory from previous decades or new populations and records.</p>
<u>Average Certainty: 8</u>	

Threatened

% of Votes: 14.3

Individual Certainty	Notes
6	<p>Rare in northern NJ. Populations at a small number of locations in southern NJ better off but subject to strong fluctuation and occasional disappearance.</p>
<u>Average Certainty: 6</u>	

Special Concern

% of Votes: 28.6

Individual Certainty	Notes
5	<p>This is the only species on our list where the comments of other voters have led me to lean toward a positive status change (from Threatened). My confidence level is low, however, as it's tough to get a handle on this species. The SJBFL Log had only 2 records over our first four years, 2008:2011, then a burst of 34 records in 2012 and 13 in 2013. We had multiple double-digit single-day counts in both those years. Sites seem relatively few, and observers following up earlier reports by driving to the area to see this unusual species may have amplified the numbers (by multiple observations). Most reports are from Salem, far fewer from Cumberland. The comments from other panelists suggest, however, that the current situation is not so different from what it has been. This seems a tough call between Special Concern and Threatened. If the majority votes for Threatened, I will change my vote back to that.</p>
8	<p>Same assessment as per Round 1 comments.</p>
<u>Average Certainty: 6.5</u>	

Stable/Secure

NO VOTES

Other

% of Votes: 42.8

Individual Certainty	Notes
5	<p>Not Applicable: This species is not threatened by habitat loss; the factors affecting its irregular appearance are related to direct and indirect competition (Nature Serve). NA applies because its appearance in New Jersey is too unpredictable for a definite status.</p>
6	<p>Not Applicable: On the edge of its range in NJ. Because this is an eruptive, unpredictable species of disturbed areas, it is difficult to consider it for protected status. NA is best category to me.</p>
5	<p>Unknown: Although it appears that Checkered White has only one or possibly two areas of regular summer occurrence in NJ, the question remains whether this species is resident (i.e., does it routinely overwinter). It would be helpful to know if there are any spring sightings to help determine this issue. If determined to be resident, I would vote Threatened. If not, Not Applicable.</p>

Average Certainty: **5.33**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	2	0	1	0	3	6.71

Justifications:

Endangered

% of Votes: 14.3

Individual Certainty	Notes
8	<p>One panelist quoted "Historically common, now rare" and another quoted Burger and Gochfeld "a dramatic decline over the past century..."</p> <p>A panelist in round 2 quoted "NA: this species is not threatened by habitat loss." All native butterfly species are threatened by habitat loss (including this one) and there are a few literature sources on butterfly population ecology about that. Habitat loss happens every day.</p> <p>Two panelists suggested this species being "unpredictable." I would like to say that unless a population study is done on a certain species of butterfly, it will all be unpredictable and just based on anecdotal evidence.</p> <p>It historically used to occur everywhere in NJ so that assumedly means it is resident even if currently it is just a summer resident.</p> <p>To answer one panelist's question if there are any Spring broods – Smith 1910 has noted them at Riverton in April, Camden in May, and 5-mile beach in May.</p> <p>It is great new populations were found of this species and they can have eruption years (like any other species of insect) but this species should be endangered because it used to be "common" and now is rare. Period.</p> <p>Remember we need to realize the status of these species a century ago or half a century ago, where there is very little literature on. We cannot just go by our own memory from previous decades or new population and sighting records.</p>

Average Certainty: 8

Threatened

NO VOTES

Special Concern

% of Votes: 28.6

Individual Certainty	Notes
8	<p>I think this species warrants listing even if only as SC. It is able to recolonize and spread rapidly from source populations and if these areas are protected or at the very least managed properly there is no reason why we wouldn't be able to maintain populations in the State.</p>
6	<p>Panel in Round 2 very divided on this species: 1 E, 1 T, 2 SC, 3 Other. Can we compromise with SC? Several panelists noted details for their vote last time, but the views are very different. If it is a resident species, as four panelists believe, it seems one that deserves concern, for the reasons noted.</p>

Average Certainty: 7

Stable/Secure NO VOTES

Other

% of Votes: 57.1

Individual Certainty	Notes
6	I have changed my vote from Threatened to NOT APPLICABLE to reflect the fact that NJ is on the edge of the range of this species. While it is possible that a few may at times be resident it appears to me that currently most or all of our records are visitors from out of state. The colony at Newark Airport is probably gone, leaving the remainder of northern NJ records to be visitors from across Raritan Bay. Similar reasoning may explain its strong variability in southern NJ.
7	Undetermined/UNKNOWN. Because of its largely unpredictable occurrence it is virtually impossible to determine a population status for this species, and we do not know whether it is actually resident (i.e., overwinters). Considering that "both its nectar source and larval host plants are abundant, and colonies can thrive in extremely marginal habitat," Gochfeld and Burger note simply "Protection of an erratic resident like this species is not practical." I agree.
6	NOT APPLICABLE: On the edge of its range in NJ. Because this is an eruptive, unpredictable species of disturbed areas, it is difficult to consider it for protected status. NA is best category to me.
6	I stick with my two colleagues in voting NA and U here. This species is not threatened by habitat loss; the factors affecting its irregular appearance are related to direct and indirect competition (Nature Serve). NA applies because its appearance in New Jersey is too unpredictable for a definite status. I feel it is mistaken to confer a status like threatened or endangered on peripheral populations that are not part of globally threatened species. It is hard to see what could be done to protect them, when it is not clear whether they are permanent residents.

Average Certainty: Unknown: 7
Not Applicable: 6

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	0	0	2	0	4	6.43

Justifications:

Endangered NO VOTES

Threatened

% of Votes: 14.3

Individual Certainty	Notes
8	<p>Will lower my vote from Endangered to Threatened to meet in the middle. However, my reasoning stays the same from Round 3:</p> <p>One panelist quoted "Historically common, now rare" and another quoted Burger and Gochfeld "A dramatic decline over the past century..."</p> <p>A panelist in round 2 quoted "NA: this species is not threatened by habitat loss." All native butterfly species are threatened by habitat loss (including this one) and there are a few literature sources on butterfly population ecology about that. Habitat loss happens every day. Even "common" butterflies now are not nearly as "common" as they were 50+ years ago.</p> <p>Two panelists suggested this species being "unpredictable." I would like to say that unless a population study is done on a certain species of butterfly, it will all be unpredictable and just based on anecdotal evidence.</p> <p>It historically used to occur everywhere in NJ so that assembly means it is a resident even if it's just brooded once or twice a year as a resident.</p>

Smith 1910 has noted them at Riverton in April, Camden in May, and 5-mile beach in May.

Remember we need to realize that status of these species at least a half century ago and look how much their numbers, occurrences, and breeding populations have dropped.

For Round 4: It is very clear that this species is a resident, thus SHOULD get some kind of status and not "N/A." Furthermore, since it is on the edge of its range it is that much more vulnerable to becoming extirpated for NJ. As one panelist noted "it is not threatened by habitat loss; the factors affecting its irregular appearance are related to direct and indirect competition (Nature Serve" but it is still very much threatened whatever the cause and we can see their location decline in the past how many decades.

It has also been brought up many times among pierid scientists that with the introduction of the cabbage white, many of our native whites are being outcompeted.

Average Certainty: 8

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

% of Votes: 85.7

Individual Certainty	Notes
5	Not Applicable: NJ is on the edge of the range of this species, and it would seem that most recent records are of visitors. There remain no known colonies in northern NJ and the same appears to be true for the southern part of the state.
6	Not Applicable: This species seems to have generated the continued widest spread of opinions probably because of the split in whether panelists think this is a permanent resident or only forms non-persistent colonies. I believe the evidence points to the latter. This combined with the fact that this species is on the edge of its range in NJ and seems to favor disturbed areas point me to NA being the best classification.
7	Unknown: Consensus appears to be out of reach for this species. It appears that considerably more survey work is necessary, particularly in South Jersey, where it may be resident, to determine its current status.
	<p>I stick with NA. This species is not threatened by habitat loss; the factors affecting its irregular appearance are related to direct and indirect competition (Nature Serve). NA applies because its appearance in New Jersey is too unpredictable for a definite status. I feel it is mistaken to confer a status like threatened or endangered on peripheral populations that are not part of globally threatened species. It is hard to see what could be done to protect them, when it is not clear whether they are permanent residents.</p> <p>Furthermore, and this applies to all candidate species, there are downsides to listing, including potential restrictions on collecting, that could interfere with documenting species' actual occurrence. Specimens obtained by field collecting and rearing, etc. may be essential to understanding life history and distribution. Except in the cases where it can be shown to be a threat, it is better on balance not to discourage people from documenting their finds through specimens. This is important, because any such efforts are likely to be carried out by private individuals and groups, not the DEP staff. We need to encourage more surveys and monitoring. Will this happen if many more species are on restrictive lists?</p> <p>The other problem, when the threat is not understood is that endless controversy can ensue. For most of these species, we don't know how to protect their populations. Declines of isolated colonies may be unavoidable, and we lack to tools and the willingness to protect large metapopulations and species that occur at low densities naturally. At least in south Jersey, there is still too much debate over habitat management on the scale that these species probably need. Many were common when fire and cutting were largely unchecked. Now that both are extremely restricted – it took Stockton College years to get State permission for a very limited forest management plan – these species are declining throughout their ranges in southern New Jersey.</p> <p>We know these things, but we persist in seeing the problem from the perspective of each individual species, one population or one colony at a time. Surveys that are overly focused on known sites can only produce neutral or bad news: if the species is still at the spot, ok, but if it isn't, this is taken as evidence of decline. How much looking is done for new colonies?</p> <p>Having a long list of T&E species may be seen as a great collection of hammers to beat back development. That's ok, but if we are letting habitat degrade all the while by fire suppression, etc. what good is stopping building? If it created some open habitat, development might even be beneficial to some species. Besides, I don't see the current list as being very effective in that regard.</p> <p>I'd like to see some successful actions for the "E" species already listed, before adding more to the list, to sit there with nothing being done. Same with the "T" list.</p>
6	

All this may seem to be beside the point of what the SCIENTIFIC issues are. I feel though, that the categories are so fuzzy and our knowledge of most of these species is so incomplete and subject to revision that there aren't clear, objective criteria. Experience is likely to show that some, possibly many, of the species are in the wrong category. I would rather not list too many in restrictive categories like "E" and "T" given that I don't see unequivocal benefit to the species from being listed. "SC" and "Apparently Secure" can be upgraded, if experience shows there are clear threats that can be managed. It's likely to be harder to get species off the "E" and "T." lists, if we learn they don't belong there.

5 I've decided to change my vote from SC to NA – based on the arguments of the panelists that noted that this species is on the periphery of its range in NJ and its up and down numbers reflect a natural pattern.

8 Unknown: further research needs to be conducted to determine this species status in NJ. I believe it is and has been a resident species that can at times be highly irruptive with South Jersey being a very good example of a large population burst during 2011:2012.

Average Certainty: 6.2

Consensus (85%) Reached? **NO**

SPECIES: Rare Skipper

Problema bulenta

NO Consensus reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	1	1	4	0	1	0	6.17
Round 2	0	1	1	5	0	0	0	6.43
Round 3	0	0	3	4	0	0	0	6.43
Round 4	0	0	2	5	0	0	0	6.33

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	1	4	0	1	0	6.17

Justifications:

Endangered **NO VOTES**

Threatened

Individual Certainty	Notes
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7 Definitely a species that should be monitored. An uncommon to rare species at coastal habitats. With climate change and no management plans, it very well could be at risk in the near future.

Average Certainty: 7

Special Concern

Individual Certainty	Notes
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8	This species appears to be secure in NJ but difficult to observe due to its habitat requirements. Large numbers (25 at one site) have been observed at several locations proximate to the Wading and Mullica Rivers. Range wide it appears to have declined considerable and NJ may be a stronghold for this species.
---	---

Average Certainty: 8

Stable/Secure

Individual Certainty	Notes
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5	Secure- Continues in modest numbers in various locations near tidal salt marsh in southern NJ.
---	--

5	Apparently Secure- Locally common. Numbers seem to be stable.
---	---

6	Apparently Secure. Widespread south of the Mullica and fairly consistent from year to year. <i>Spartina cynosuroides</i> is known host, threatened by sea level rise and Phragmites, but larvae can eat Phragmites. Probably at least small populations in all brackish tidal marshes with <i>S cynosuroides</i> S of Mullica.
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6	Apparently Secure- consistently reported each year on the SJBFB Log (and also on at least two of the four South Jersey NABA Counts) in fair numbers in several areas of South Jersey where its host plant grows.
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Average Certainty: 5.5

Other

Individual Certainty	Notes
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Not Indicated	No Opinion
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Average Certainty: Not calculated

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	1	5	0	0	0	6.43

Justifications:

Endangered **NO VOTES**

Threatened % of Votes: **14.3**

Individual Certainty	Notes
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7	Though it can be found in costal habitats during the right time of year, not many are observed too often. This can be due to the habitat they occur in or they can be thinly dispersed. Regardless, their habitat is a threat to this species due to climate change. A butterfly's habitat being threatened is just as much of a threat to the butterfly as is the habitat.
---	---

Average Certainty: 7

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
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8	Same assessment as per Round 1 comments.
---	--

Average Certainty: 8

Stable/Secure

% of Votes: 71.4

Individual Certainty	Notes
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5	Apparently Secure
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6	No definite threats identified. Most locations known since it was first found in NJ still have the species. Only much more intensive surveys could show how many populations exist, but habitat is widespread and host is still common.
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7	Apparently Secure- consistently reported each year on the SJBFB Log from three or four counties (ATL, CMY, CUM, and sometimes SAL), often in double digits. It is also recorded in good numbers on at least two of the four South Jersey NABA July 4th Counts most years: the Galloway Count & the Cumberland Count.
---	--

6	Apparently Secure- Locally common. Numbers seem to be stable.
---	---

6	Apparently Secure- based on the opinions of panelists more familiar with this species.
---	--

Average Certainty: 6

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	3	4	0	0	0	6.43

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 42.9

Individual Certainty	Notes
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7	Though it can be found in coastal habitats during the right time of year, not many are observed too often. This can be due to the habitat they occur in or they can be thinly dispersed. Regardless, their habitat is a threat to this species due to climate change. A butterfly's habitat being threatened is just as much of a threat to the butterfly as the habitat.
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Cromartie, William J; Schweitzer, Dale F., 1993: Biology of the rare skipper, Problema bulenta Hesperidae, in southern New Jersey. Journal of the Lepidopterist's Society. 16 June; 274: 125 : 133

8	I say SC for this because even though it is relatively secure in NJ it is of regional concern and has declined in most of its range outside of NJ. It is stable in NJ but it is a G2 species which should warrant some listing and protection.
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7 I am keeping my vote as Special Concern, the category that drew 5 of the 7 votes last time. Rationale was detailed in Rounds 1 & 2.

Average Certainty: 7.3

Stable/Secure

% of Votes: 57.1

Individual Certainty	Notes
5	Apparently Secure- Having no clear current threats, and continuing in stable numbers, this species seems to be holding its own.
6	Apparently Secure- Based on the opinions of panelists more familiar with this species. Sea-level rise may eventually threaten its habitat, but I think that's too far in the future to justify a higher listing now.
6	Apparently Secure- Locally common. Numbers seem to be stable.
6	Apparently Secure- Way too common and widespread for listing. No definite threats identified. Furthermore, climate change is a much of a potential benefit as a threat, as far as anyone can foresee. It is, after all, a southern species at the northern edge of its range.

Average Certainty: 5.8

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	6.33

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

% of Votes: 28.6

Individual Certainty	Notes
7	<p>Sticking with Species of Concern. Round 3 comments for SC support my vote.</p> <p>For the panelists that kept it as "Apparently Secure-"</p> <p>"Stable numbers" and "numbers seem stable" – There have been no population studies on this species so that information is all anecdotal and assumedly only for a few locations instead of its entire range.</p> <p>"no current threats" – threat is sea level rise.</p> <p>Sea level rise is "too far in the future" – that is relative and currently knowing a threat, it needs to be acted on.</p>

8 Special Concern: G2 status and rarity outside of NJ justifies listing even though it is probably secure within NJ.

Average Certainty: 7.5

Stable/Secure

% of Votes: 71.4

Individual Certainty	Notes
5	Apparently Secure- Though this species is declining in other parts of the country, having no clear threats in NJ and continuing in stable numbers, it seems reasonably secure here.
6	Apparently Secure- Locally common and found at a number of sites. Numbers seem to be stable in state.
6	Apparently Secure. I am not persuaded that threats to this species are imminent.
6	Apparently Secure. Too common and widespread for listing. No definite threats identified. Furthermore, climate change is a much of a potential benefit as a threat, as far as anyone can foresee. It is, after all, a southern species at the northern edge of its range. Furthermore, it can be readily reared on Phragmites, according to several sources. We don't know what its likely future is.
Not Indicated	Apparently Secure- Changing my vote (from SC) in the hope that we can reach consensus. I think this is a borderline situation between S* and SC. It is a species very much habitat-limited, but in those areas it seems to be holding its own.

Average Certainty: 5.8

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: Appalachian Grizzled Skipper

Pyrgus centaureae wyandot

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	0	0	0	2	4	6.6
Round 2	0	0	0	0	0	0	7	6.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	0	0	0	2	4	6.6

Justifications:

Endangered

Individual Certainty	Notes
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7 Maintain endangered status in case a colony is discovered but species should be considered historic.

Average Certainty: 7

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
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7 Not Applicable: Probably Extirpated: Formerly resident in northern NJ. Already declined by the 1940s with no records after the 1950s†. Now absent from New Jersey and New York. Currently the entire population is now rare and declining and confined to the Appalachians from extreme southern Pennsylvania into West Virginia and Virginia.

6 Not Applicable: Extirpated.

8 Not Applicable: Extirpated.

5 Not Applicable: Probably Extirpated.

Not indicated No Opinion

Not indicated No Opinion

Average Certainty: NA: 6.5

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	6.43

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern **NO VOTES**

Stable/Secure **NO VOTES**

Other

% of Votes: 100

Individual Certainty	Notes
6	Not Applicable: <u>Extirpated</u>
5	Not Applicable: <u>Extirpated</u> . Gone over 30 years and not likely to recolonize, given distance to other populations.
6	Not Applicable: <u>Extirpated</u> .
5	Not Applicable: <u>Extirpated</u> .
7	Not Applicable: <u>Extirpated</u>
8	Not Applicable: <u>Extirpated</u> . Gochfeld and Burger indicate no records since the 1950s.
8	Not Applicable: <u>Extirpated</u> .

Average Certainty: 6.43

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Acadian Hairstreak

Satyrium acadica

Consensus reached in Round 2

Proposed status: ENDANGERED

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	4	0	1	0	0	2	0	6.6
Round 2	6	0	1	0	0	0	0	6.7

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	4	0	1	0	0	2	0	6.6

Justifications:

Endangered

Individual Certainty	Notes
8	Very local and never very common, after periods in the 1960s with records from several locations in Sussex and a few records from two other locations also in Sussex beginning in the 1990s, at one of which for only one year, but a record in 2005 from the other site. One individual was reported from Vernon, Sussex County in 2012. Out of state uncommon to rare south to central Pennsylvania.
5	Always local but definite decline more recently. Probably hardest resident species to find in the state. Now in danger of winking out in the state.
8	One observation of one individual in 2012 says it all. Although at the southern periphery of its range, it was formerly more common and widespread, especially in Sussex County, but it is no longer present in former locations. This species is ant-associated, so there may be an issue there, and/or with climate change.
5	Species rarely encountered. Doesn't occur in SNJ. Prefers wetlands which could easily be impacted by anthropogenic activity.

Average Certainty: 6.5

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
7	This species appears to have never been common in NJ but has declined recently with most colonies lost. There needs to be greater survey effort targeting this species.

Average Certainty: 7

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
Not indicated	No Opinion
Not indicated	No Opinion

Average Certainty: Not indicated

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	6	0	1	0	0	0	0	6.7

Justifications:

Endangered

% of Votes: 85.7

Individual Certainty	Notes
8	Only two records in the last 20 years.
5	My vote is based on the comments of other voters who know its status in NNJ. This is not a species of SNJ.
7	Explanations of why this species should be endangered from round 1 has convinced me it still should be endangered and have increased my confidence level.
6	Always local but wetland willow habitat loss has contributed to recent decline. At southern limit of eastern U.S. range. Definitely rarest Satyrium species in state and in danger of winking out.
8	Formerly occurring in at least 6 northern counties, this species is at the vanishing point in New Jersey, with only one known location with one individual reported (as of 2012). Severe declines also noted in adjacent Orange County, NY. Very likely to wink out, if it hasn't already.
7	Same assessment as per Round 1 comments.

Average Certainty: **6.83**

Threatened **NO VOTES**

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
6	It seems as if SC is fully justified, but E is overreach, given lack of specific information on causes of rarity or decline.

Average Certainty: **6**

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Hickory Hairstreak

Satyrium caryaevorus

Consensus reached in Round 4

Proposed status: Special Concern**

****Consensus of 83.3% was reached (5 out of 6) following a panelists request to not be counted due to a low confidence.**

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	2	2	1	2	0	5.6
Round 2	0	0	4	1	2	0	0	5.86
Round 3	0	0	5	0	2	0	0	6.29
Round 4	0	0	5	0	2**	0	0	5.85

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	2	1	2	0	5.6

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
5	Not described until 1942†. Easily confused with much more common Banded Hairstreak. Never very many reports. Confined to northern NJ where uncommon until about five years ago. More recently rare. Only one or two reported in 2013.
6	A relatively recently described species. Rarely encountered in SNJ (if at all?) but many hickory forests to look through. Occasionally found from NNJ. See NABA Springdale butterfly counts.

Average Certainty: 5.5

Stable/Secure

Individual Certainty	Notes
4	Apparently Secure- Uncommon in rich woods in northern part of state but never very common. Needs to be distinguished from Banded Hairstreak. Not clear if population is increasing or decreasing.
7	This species appears to be widely distributed but at very low numbers. Apparently Secure.

Average Certainty: 5.5

Other

Individual Certainty	Notes
6	Unknown: Very erratic occurrence (possibly cyclical), possibly secretive habits (may spend a lot of time in treetops), and difficulty separating it from Banded Hairstreak, make it difficult to judge the population status of this species.
Not indicated	No Opinion
Not indicated	No Opinion: Not a South Jersey species (apparently) and no records in our data.

Average Certainty: U: 6

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
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Count	0	0	4	1	2	0	0	5.86
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Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 57.1**

Individual Certainty	Notes
6	Confined to northern NJ. Population appears to have dropped strongly in the past decade.
6	Very little historical literature on this species. Going with other panelists experience and my own. This species should be on the lookout. It does not occur everywhere hickory occurs.
5	When found, it's always in low numbers. Hard to tell if numbers are falling or stable. Probably underreported since usually found in company of much more common and widespread Banded Hairstreak.
7	Same assessment as per Round 1 comments.
<u>Average Certainty: 6</u>	

Stable/Secure **% of Votes: 14.3**

Individual Certainty	Notes
5	Apparently Secure- This is not a species of the Coastal Plain. Vote based on comments from other voters.
<u>Average Certainty: 5</u>	

Other **% of Votes: 28.6**

Individual Certainty	Notes
5	Not enough information supplied to justify secure, but no information on potential or actual threats. Doubts about identification make it hard to be very confident.
7	Unknown: Reported numbers are extremely low, but the difficulty of separating this species from Banded Hairstreak in turn makes it difficult to evaluate these numbers.
<u>Average Certainty: 6</u>	

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	5	0	2	0	0	6.29

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 71.4

Individual Certainty	Notes
7	Confined to northern NJ and now rarely found there. The population shows no sign of recovery from its drop over the past decade. In fact, because of its similarity to the far more abundant Banded Hairstreak, some of its later records may actually belong to that species.
5	When found, it's usually in low numbers. Hard to tell if numbers are falling or stable. Probably underreported since usually found in company of much more common and widespread Banded Hairstreak.
7	Very little historical literature on this species. Going with most other panelists experience and my own. This species should be on the lookout. It does not occur everywhere hickory occurs.
8	This species appears to be on the edge and further work needs to be targeted on it to prevent it from needing a higher status in the future.
5	Changing my vote to the majority: Special Concern. Confidence level = 5 because this is not a species of southern NJ, so have no data nor experience. Vote based on comments of other panelists.

Average Certainty: 6.4

Stable/Secure NO VOTES

Other

% of Votes: 28.6

Individual Certainty	Notes
7	UNKNOWN: primarily because of difficulty of separating from Banded. Even experienced observers are stymied by many apparent intermediates that display some but not all of the ID characteristics found in field guides. An actual colony (highest observed numbers in the teens) was discovered at Whittingham WMA this year. Many individuals exhibited all the field marks per Glassberg (A Swift Guide to Butterflies of N. Am.) plus widening of the FW PM band per Cech and Tudor (Butterflies of the East Coast); others lacked one or more of these marks. A photo was taken of a mating pair in which one displayed all characteristics and thus definitely appeared to be a Hickory while the other lacked all but one Hickory ID characteristic (white on both sides of the PM bands), and may have been a Banded. Interestingly, this group of hairstreaks was available for inspection only early in the morning—after that they disappeared; providing some evidence that behavioral characteristics may contribute to this species' apparent rarity. The fact that numbers are rather cyclical—Hickory was absent in 7 years of the 22 Springdale 4JC counts, occurred in low single digits 11 years, and showed up in double figures 5 years (including 2014)—also makes it very difficult to evaluate its population status.
5	No information on potential or actual threats to justify SC. Doubts about identification make it hard to be very confident for an S*, so I stay with U.

Average Certainty: 6

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	5	0	2**	0	0	5.85

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 83.3 (adjusted: see comment below)****

Individual Certainty	Notes
7	While this species apparently remains confined to northern NJ, after about a decade of near absence, a better number was reported in 2014. This behavior is in line with past experience, with long periods of few if any records interspersed with occasional better years, and is not enough to be regarded as recovery.
5	When found, it's usually in low numbers. Hard to tell if numbers are falling or stable. Probably underreported since usually found in company of much more common and widespread Banded Hairstreak.
5	In order to promote consensus, I am changing my vote from Unknown to SC; perhaps that will focus more attention on a species that is very difficult to identify, and therefore to track in terms of its population.
8	Sticking with SC. Round 3 comments all represented why this should be of concern. Not higher or lower.
8	Special Concern: This species appears to warrant a special concern status and further research.

Average Certainty: 6.6

Stable/Secure **NO VOTES**

Other **% of Votes: 16.6 (adjusted: see comment below)****

Individual Certainty	Notes
5	Unknown: No information on potential or actual threats to justify SC. Doubts about identification make it hard to be very confident for an S*, so I stay with U. Since it's likely that the state will rely on volunteer efforts to monitor these species, I worry that listing may actually end up discouraging the finding and documenting of new reliable records. This is especially a problem when photographic evidence may be unreliable or equivocal.
3*	Unknown*. The lengthy comment from the panelist last time about the difficulty of separating this species from banded hairstreak and some research into the subject have convinced me to change my vote to Unknown. This is a North Jersey species that I have no experience with and it seems a species very difficult to study in NJ. If counting my vote for U means that we do not have a majority, I request that I be counted as abstaining. I am not comfortable voting on this enigmatic species. <u>**NOT CALCULATED IN TALLY DUE TO LOW CONFIDENCE/REQUEST BY PANELIST**</u>

Average Certainty: 4

Consensus (85%) Reached? **YES**

SPECIES: Edwards' Hairstreak

Satyrium edwardsii

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	1	1	4	0	1	0	6
Round 2	0	1	1	5	0	0	0	6
Round 3	0	1	2	4	0	0	0	6
Round 4	0	0	2	5	0	0	0	6.57

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	1	4	0	1	0	6

Justifications:

Endangered **NO VOTES**

Threatened

Individual Certainty	Notes
----------------------	-------

7 Species not encountered that often. Not much in the historic literature and specimens. Scrub oak habitats are common but not the species.

Average Certainty: 7

Special Concern

Individual Certainty	Notes
----------------------	-------

6 Locally common in scrub oak habitats in northern NJ, and colonies have recently been found on the Outer Coastal Plain. Could be vulnerable because of its ant association.

Average Certainty: 6

Stable/Secure

Individual Certainty	Notes
----------------------	-------

6 Apparently Secure- Probably always very local. Uncommon though widespread but local in Scrub Oak in Sussex and Warren Counties. Also reported from Morris, Bergen, and Passaic Counties. Rarer and very local farther south.

5 Apparently Secure- Can be locally common especially along ridge-tops in northern parts of the state.

7 This appears to be a highly localized species and restricted by the distribution of suitable habitat. Apparently Secure.

5 This is a difficult butterfly to find on NJ's Coastal Plain. The SJBFB log has only 24 records in six years, only one double-digit single-day count (22 individuals on 6/22/09), and all our records come from just two areas: one in and around the Atlantic City Airport; the other along the Hesstown powerline in Cumberland County. My understanding is that this species is more easily found in North Jersey. The host plant is abundant in South Jersey, and perhaps the ant attendant, *Formica* sp., is the limiting factor here. I vote for "Apparently Secure" only because of its larger numbers in North Jersey. If the status elsewhere in the state were like South Jersey's, I'd vote for "Species of Special Concern."

Average Certainty: 5.75

Other

Individual Certainty	Notes
----------------------	-------

Not indicated No Opinion

Average Certainty: **Not calculated**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	1	5	0	0	0	6

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
----------------------	-------

7 Scrub oak habitat is common but not the species. Habitat and thus the butterfly is threatened by fire because of that habitat it occurs in. Dependent on an ant species that no one is familiar with in NJ.

7 There was no panelists comment in the secure/stable explanations that convinced me that it is secure and stable. It seems they were all based on personal observation.

Average Certainty: **7**

Special Concern **% of Votes: 14.3**

Individual Certainty	Notes
----------------------	-------

7 Much apparently suitable ridge-top scrub oak habitat is unoccupied in North Jersey, with only 6:10 colony sites known. Habitat is vulnerable to fire, and the butterfly is dependent upon its ant-association (which may explain why much habitat is unoccupied). There is some evidence that some species of ants in the genus Formica are declining.

Average Certainty: **7**

Stable/Secure **% of Votes: 71.4**

Individual Certainty	Notes
----------------------	-------

6 Apparently Secure- Uncommon though widespread but local in Scrub Oak along ridge tops in Sussex and Warren Counties. Rare to absent to the south.

4 The consensus is pretty clear that there are no identified threats to the species, other than that it is uncommon.

5 Apparently Secure- The SJBFB log has only 24 records in six years, only one double-digit single-day count (22 individuals on 6/22/09), and all records come from just three sites: 10 from areas in/around Atlantic City Airport; 12 from Hesstown (CUM); and 2 from Peaslee WMA. If a separate status were possible for the Coastal Plain, this would qualify as a species of Special Concern. Comments from other voters about its numbers in NNJ have led me to choose Apparently Secure.

Apparently Secure- Well distributed along ridge-top habitat in northern NJ. Good numbers in appropriate

6 habitat which is mostly protected. Rare and extremely local in southern part of the state.

7 Same assessment as per Round 1 comments.

Average Certainty: 5.6

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	2	4	0	0	0	6

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
----------------------	-------

7 Scrub oak habitat is common but not the species. Habitat and thus the butterfly is threatened by fire because of the habitat is occurs in. Dependent on an ant species that no one is familiar with in NJ.

7 In NNJ they occur in ridge tops which are greatly threatened by climate change.

7 There was no panelist comment in the secure/stable explanations that convinced me that it is secure or stable. It seems they were all based on personal observation.

Average Certainty: 7

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
----------------------	-------

6 There are 2 possible significant threats to this species: loss of its relatively limited scrub oak habitat to fire, and loss of its ant associate, Formica integra. Only one of the 6:10 known colonies in North Jersey consists of more than a handful of individuals.

7 This species would seem to warrant listing of SC because it seems to be one the edge and research work needs to be targeted to insure that it does not decline further and to make sure we understand it better.

Average Certainty: 6.5

Stable/Secure **% of Votes: 57.1**

Individual Certainty	Notes
----------------------	-------

6 Apparently Secure- While Rare in southern NJ, this species remains locally common on the ridge-tops with Scrub Oak and the appropriate ant species in northwestern NJ. Its population shows no sign of decrease.

6 Apparently Secure- Well distributed along ridge top habitat in northern NJ. Good numbers in appropriate habitat which is mostly protected. Rare and extremely local in southern part of the state.

5 Sticking with Apparently Secure as there are no identified threats to the species, other than that it is uncommon. If it is clear that scrub oak habitat is disappearing to either fire or succession, one could justify SC, because it seems to meet the criteria, "inherent vulnerability to environmental deterioration or habitat modification that would result in their becoming Threatened if conditions surrounding the species begin or continue to deteriorate. This category includes species that meet the foregoing criteria and for which, in addition, there is little understanding of their current population status."

5 Keeping my vote with the majority from Round 2: Apparently Secure, for reasons detailed then.

Average Certainty: 5.5

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	6.57

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern % of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

6 This species is described by some panelists voting Apparently Secure as "locally common on the ridge-tops" and "well distributed along ridge-top habitat." But only 3 locations on the Kittatinny Ridge are regularly checked for this species: Sunrise Mountain (which regularly produces numbers in the low double digits—high of 27 since 2001, but usually in the teens); Mecca Gap (the most robust known colony, producing in the mid-double digits, with a high in 2010 of 113), and Crater Lake Road (usually < 5 [five] individuals). Other, extremely scattered, reports (mainly off the ridge) are of single individuals or very low single digits, and the only one of these sites that had been visited somewhat regularly has been cleared as part of the Susquehanna-Roseland power line upgrade. The ridge-top locations are vulnerable to fire, and all are vulnerable to any decline in this species' ant associate. I simply do not feel comfortable calling a species restricted to only known 2 robust colonies Secure. Listing it as SC might focus enough attention to get the entire length of the Ridge in NJ surveyed so that we can develop a much better idea of its population status.

I will lower my originally Threatened status to now Species of Concern, though I still feel it should be T.

Scrub oak habitat is common but not the species. Habitat and thus the butterfly is threatened by fire because of the habitat it occurs in. Dependent on an ant species that no one is familiar with.

8 In NNJ they occur on ridge tops which are greatly threatened by climate change.

No comments for "secure" convinced me to list lower than SC.

Average Certainty: 7

Stable/Secure % of Votes: 71.4

Individual Certainty	Notes
----------------------	-------

Apparently Secure- Locally common and widespread on ridge-tops with Scrub Oak and the appropriate ants

- 7 in north-western NJ, this species shows little sign of decline.
- 6 Apparently Secure- Well distributed along ridge top habitat in northern NJ. Good numbers in appropriate habitat which is mostly protected. I am unaware of population decreases. Rare and extremely local in southern part of the state.
- 5 Sticking with Apparently Secure as there are no identified threats to the species, other than that it is uncommon. If it is clear that scrub oak habitat is disappearing to either fire or succession, one could justify SC
- 6 Apparently Secure. Keeping my vote with the majority from Round 2 and 3 for reasons detailed in Round 2
- 8 Apparently Secure. Although this species warrants further study.

Average Certainty: 6.4

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: Northern Oak Hairstreak

Satyrrium favonius Ontario

NO Consensus reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	1	2	3	0	1	0	5.5
Round 2	0	1	4	2	0	0	0	5.71
Round 3	0	1	4	2	0	0	0	5.86
Round 4	0	0	5	2	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	2	3	0	1	0	5.5

Justifications:

Endangered NO VOTES

Threatened

Individual Certainty	Notes
----------------------	-------

7 A very sporadic species. No locations you can go to where you will have a high chance of seeing them. Shows up in different places once or twice where it has not been found before, but they are rarely found there again.

Average Certainty: 7

Special Concern

Individual Certainty	Notes
5	Similar in erratic occurrence to Hickory Hairstreak. No evidence of a decline, but has consistently been rare, with generally only one individual reported at a time. No reliable colony is known.
5	This seems the rarest and most unpredictable of the five <i>Satyrium</i> that occur in South Jersey. Only 15 reports and a total of 16 individuals in six years. Records are scattered with no site known where it can be dependably found. Gochfeld and Burger (1997) note that it has always been rare in NJ. My round #1 vote is for "Species of Special Concern." My Confidence Level is 5 simply because it seems a little-studied/little-understood species in our area. Is it doing OK in places we do not know to search, or is it barely hanging on?

Average Certainty: 5

Stable/Secure

Individual Certainty	Notes
5	Apparently Secure- Historically always rare, but occasionally very locally and briefly common. Now a few reports annually in both northern and southern NJ. In 2013, a few in northern NJ, but only one reported in southern NJ (Camden County). Though the population remains low, it apparently is not declining.
4	Apparently Secure- Widespread in north and south but very uncommon. Not clear if population is increasing or decreasing.
7	Apparently Secure. This species appears to be widespread but uncommon.

Average Certainty: 5.33

Other

Individual Certainty	Notes
Not indicated	No Opinion

Average Certainty: **Not calculated**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	4	2	0	0	0	5.71

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
	I am not sure how other panelists can say this species is stable/secure when comments for threatened and

species of concern in round 1 suggest they are sporadic and erratic. Can't really say this species is on decline simply based off of personal observational data. Even with population models, there may not be many individual records to make it significant.

6 I do say threatened because it is very uncommon and unreliable when looking for it, especially in places it has been previously recorded. No historic records going back 50-100 years ago which help any of us on making decisions on previous range and abundance for the state. It could have been very common 100 years ago.

Average Certainty: 6

Special Concern

% of Votes: 57.1

Individual Certainty	Notes
5	This seems the rarest of the five Satyrium that occur in South Jersey. The SJBFL Log has only 15 reports and a total of 16 individuals in our six years. Records are scattered with no site known where it can be dependably found.
6	Rare but widespread in north and south. Usually only singletons found so not clear if population is increasing or decreasing.
7	Persistent low reported numbers (1 or 2 per year in North Jersey) and lack of reliable colony sites would seem to make this species inherently vulnerable enough to merit Special Concern status.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.25

Stable/Secure

% of Votes: 28.6

Individual Certainty	Notes
5	Apparently Secure- Though the population remains very small, it does not appear to be declining.
4	The consensus is pretty clear that there are no identified threats to the species, other than that it is uncommon.

Average Certainty: 4.5

Other

NO VOTES

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	4	2	0	0	0	5.86

Justifications:

Endangered **NO VOTES**

Threatened

% of Votes: 14.3

Individual Certainty	Notes
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I am not sure how other panelists can say this species is stable/secure when comments for threatened and species of concern in round 1 suggest they are sporadic and erratic. Can't really say this species is on decline simply based off of personal observational data. Though all butterflies are declining in general.

Panelist: "...not clear if population is increasing or decreasing..." The state population? Is there any reliable place to get this species consistently in high numbers?

Panelist: "it does not appear to be declining" What populations are being monitored?

7

The fact that there is no reliable spot for this species despite oak being everywhere is worrisome. Even if there are a handful of populations that they can consistently be found at, is a handful even enough?

Average Certainty: 7

Special Concern

% of Votes: 57.1

Individual Certainty	Notes
----------------------	-------

5 With only a very few records in most years in northern NJ and not many more in southern NJ, this species is decidedly rare. With such a low population and without any know colony sites, this it is clearly vulnerable.

5 Rare but widespread in northern and southern NJ. Usually only singletons found so not clear if population is increasing or decreasing.

7 These species appears to be on the edge and further work needs to be targeted on it to prevent it from needing a higher status in the future.

6 Panel in Round 2 divided on this species. I am keeping my vote as Special Concern, the category that drew 4 of the 7 votes last time. A rare butterfly that seems in need of monitoring because so scattered and poorly-known at both ends of the state.

Average Certainty: 5.5

Stable/Secure

% of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

6 Secure. Interestingly, this was a "big" year for Oak Hairstreak in North Jersey, with at least 6 reported (3 of these on the Kittatinny ridge in the DWGNRA, all on the day of the Springdale 4JC, after the count's first record of 1 in 2013). I am persuaded that this species exists permanently at an (apparently) low but stable population level (or is behaviorally mostly undetectable).

5 This is another example of a species that some feel warrants SC simply because it is very uncommon. I don't agree. Unless there is a known vulnerability or a specific threat, Apparently Secure is the appropriate category. The DEP has no basis for acting in the absence of a specific threat, and as far as I can see, they rely on observations by others for information on status, so SC is not going to result in more intensive monitoring than the species is receiving now. The only other category would be U, but I think its widespread occurrence is enough to rule that out.

Average Certainty: 5.5

Other

NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special	Secure	Unknown	No	Not	Certainty
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Count	0	0	5	2	0	0	0	6.29
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Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 71.4**

Individual Certainty	Notes
6	As with the preceding species, Oak Hairstreak, normally quite rare, had a better year in 2014. And as with Hickory Hairstreak, this is not enough to be regarded as recovery.
5	Rare but widespread in northern and southern NJ. Usually only singletons found so not clear if population is increasing or decreasing since no known colonies. Need more evidence for me to support position of panelists who rate this species as secure.
8	I will lower my status to SC (thought I still feel it should be T) to go with the majority. Good cases for T and SC from Round 3. Still not sure how this species is "Apparently Secure." For every butterfly species (including common ones) there is ALWAYS the threat or habitat loss and climate change and there are literature sources explaining how butterflies are declining because of this. How many hectares of oak forest have been lost over the last 50+ years because of those threats....??
6	Special Concern: Sticking with my vote with the majority from Round 3 here. I am not convinced by the argument made several times in Round 3 about this species and others that rarity is not a reason to list a species and that we must first know what specific factors threaten it. That's a level of knowledge hard to reach for species as rare as this one. Rarity itself is a threat, in my view, because of the simple fact that species that exist in such very small populations as this one are inherently vulnerable. If oak hairstreak was as numerous as frosted elfin (a species we agreed deserves T), we might be able to pinpoint the specific factors limiting it – and that might make it a T. Until we know more, Special Concern seems appropriate to me.
8	Special Concern: This species appears to warrant a special concern status and further research.

Average Certainty: 6.6

Stable/Secure **% of Votes: 28.6**

Individual Certainty	Notes
6	Apparently Secure. Noted by Cech and Tudor as "the rarest Satyrium in its range." Burger and Gochfeld (in 1992) called it "local and usually rare"—a description that applies equally well today. No persuasive evidence of decline has been put forward.
5	This is another example of a species that some feel warrants SC simply because it is very uncommon. I don't agree. Unless there is a known vulnerability or a specific threat, Apparently Secure is the appropriate category. The DEP has no basis for acting in the absence of a specific threat, and as far as I can see, they rely on observations by others for information on status, so SC is not going to result in more intensive monitoring than the species is receiving now. The only other category would be U, but I think its widespread occurrence is enough to rule that out.

Average Certainty: 5.5

Other **NO VOTES**

Consensus (85%) Reached? **NO**

Proposed Status: Referred to ENSAC

SPECIES: Coral Hairstreak

Satyrrium titus

No Consensus Reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	2	4	0	1	0	6
Round 2	0	0	2	5	0	0	0	6.5
Round 3	0	0	2	5	0	0	0	6.3
Round 4	0	0	2	5	0	0	0	6.57

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	4	0	1	0	6

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
6	Well distributed but nowhere common. Appears to be declining in northern NJ.
7	Historically a very common species throughout most of its range in NJ. However, they are not as easily encountered in recent decades, though its host plants can be found at numerous sites.

Average Certainty: 6.5

Stable/Secure

Individual Certainty	Notes
6	Apparently Secure- Historically fairly stable, though perhaps declining in last five or ten years. Uncommon but widespread in northern NJ; less common in southern NJ.
5	Apparently Secure- Widespread in the state, although may be declining in the northern part.
	Apparently Secure- No evidence of decline in this species during 33 yrs of butterfly count

5

6 Seems reliable and regular, and not restricted to localized colonies in South Jersey. Like other members of the genus, its numbers apparently fluctuate annually more than most other butterfly species.

Average Certainty: 5.5

Other

Individual Certainty	Notes
----------------------	-------

7 No Opinion: This species seems to have always been widespread but at low numbers in NJ. There does not appear to much data available to clearly give it one status or another but it may not be stable considering they have been harder to find over the last year.

Average Certainty: 7

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	6.5

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
----------------------	-------

7 Thinly dispersed even though host plant can be found everywhere in the state. Two panelists that voted for stable/secure, still noted that this species is in decline, meaning it should be a species of concern. Next time the butterflies get reviewed by the state it may be too late for them to recover since they weren't listed now. Also, another panelist suggested no decline after 33 years of butterfly counts. Remember, that it is extremely difficult and very unreliable to do population ecology with butterfly count data.

7 Although subject to great swings in abundance, there appears to be a downward trend in this species in North Jersey despite abundance of its main host plant, Prunus serotina. This is sufficiently alarming to warrant Special Concern.

Average Certainty: 7

Stable/Secure **% of Votes: 71.4**

Individual Certainty	Notes
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6 Apparently Secure- Widespread in the state, although may be declining in the northern part.

6 Apparently Secure- No evidence of decline in this species during 33 yrs of butterfly count

Apparently Secure- Seems reliable and regular, although its description of "common," listed in the CMBO Butterfly Checklist and in Gochfeld and Burger in the 1990s may no longer be accurate. ("Uncommon" might be better fit for SNJ.) The SJBFLog has 84 reports in six years, from seven of the eight southern counties,

- 6 sometimes noting double-digit counts, although usually fewer than that.
- 6 Apparently Secure- Widespread in the state, although may be declining in the northern part.
- 7 Same assessment as per Round 1 comments.

Average Certainty: 6.2

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **NO**

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	6.29

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
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7 I just have to stay with SC for this species. Three of the 5 panelists who evaluated it as "Apparently Secure" noted that it shows evidence of decline, at least in the north. It was always uncommon (relative to, say, Banded Hairstreak) in North Jersey—from 1992 to 2008 it was recorded every year in single digits (usually ≤5) on the Springdale 4JC count (with an anomalous 12 in 2003). Now it is MUCH less common (only 1 seen on the Springdale count since 2008) without any obvious change in availability of its host plant. Coral Hairstreak is ant-associated, so perhaps its ant partner is declining. I've looked at a whole lot of butterfly weed in recent years, and they simply no longer have their Coral Hairstreaks. One panelist doesn't think our evaluations should be based on "observational data," another has reservations about butterfly count data (also observational), but we have very little else to work with.

7 Thinly dispersed even though host plant can be found everywhere in the state. Two panelists that voted stable/secure still noted that this species is in "decline", meaning it should be a species of concern. Also, another panelist suggested no decline after 33 years of butterfly counts. Remember that it is extremely difficult and very unreliable to do population ecology with butterfly count data. Even if combining all the butterfly counts in the state, they still don't cover the entire state.

7 Panelist: "Although subject to great swings in abundance, there appears to be a downward trend in this species in North Jersey despite abundance of its main host plant, Prunus serotina. This is sufficiently alarming to warrant Special Concern." Agreed!

Average Certainty: 7

Stable/Secure **% of Votes: 71.4**

Individual Certainty	Notes
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5 Apparently Secure- Though recently declining in north-western NJ, this species remains widespread and apparently stable in the remainder of the state.

6 Apparently Secure- Widespread in the state. Appears to be secure in southern part of state, although may be declining in the northern part. To me doesn't merit the same consideration as other butterflies we've classified as Special Concern.

7 This species seems to be on the edge for Stable versus SC for me and is similar in status to a lot of things. It is fairly uncommon but yet you can stumble on them at random in your travels throughout the State.

6 Sticking with Apparently Secure. There are no specific threats identified and no evidence of decline over much of its NJ range.

6 Keeping my vote with the majority from Round 2: Apparently Secure, for reasons detailed then.

Average Certainty: 6

Other NO VOTES

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	6.57

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern % of Votes: 28.6

Individual Certainty	Notes
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7 Clearly declining markedly, at least in North Jersey, for no apparent reason, but panelists familiar with apparently stable populations in South Jersey do not seem to take the northern decline seriously. As an active field observer who saw only one Coral Hairstreak this year, I cannot consider it Secure.

8 Sticking with Species of Concern. See Round 3 comments, which both panelists explained why it should be. Springdale butterfly count data suggests its decline. Host plant is everywhere, though not the butterfly. Etc.

8 It may be a "wide spread" species but does not occur in the Pine Barrens, only around it. The PB takes up 70% + of south NJ.

Average Certainty: 7.5

Stable/Secure % of Votes: 71.4

Individual Certainty	Notes
----------------------	-------

5 Apparently Secure- Certainly in trouble in north-western NJ, however panelists from other parts of the state report apparent stability elsewhere. Though my inclination based upon my own experience and that of colleagues living nearby is that "Special Concern" is warranted, perhaps for the entire state "Apparently Secure" is more appropriate.

6 Apparently Secure- Widespread in the state. Appears to be secure in southern part of state, although may be declining in the northern part. To me doesn't merit the same consideration as other butterflies we've classified as Special Concern.

6 Apparently Secure- Sticking with Apparently Secure. There are no specific threats identified and no evidence of decline over much of its NJ range.

6 Apparently Secure. Keeping my vote with the majority from Round 2 and for reasons detailed in Round 2.

8 Apparently Secure. Although this species warrants further study.

Average Certainty: 6.2

Other NO VOTES

Consensus (85%) Reached? **NO**

Proposed Status: Referred to ENSAC

SPECIES: Eyed Brown

Satyroides Eurydice

Consensus reached in Round 2

Proposed status: SPECIAL CONCERN

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	3	2	0	2	0	5.8
Round 2	0	1	6	0	0	0	0	5.86

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	3	2	0	2	0	5.8

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern

Individual Certainty	Notes
----------------------	-------

5 Only known from a couple of metapopulations in Sussex County. Status should be monitored going forward.

6 Although it occurs in relatively few colonies, its wetland habitat is generally protected, and not highly vulnerable to succession.

6 Definitely a species to keep an eye on at known locations. These locations can occasionally have outbreak years like every other species, thus, population studies should be conducted.

Average Certainty: 5.67

Stable/Secure

Individual Certainty Notes

6 Apparently Secure- Historically not separated from Appalachian Brown until 1970, this species continues very locally in the wetlands of the Walkill River drainage basin in Sussex County. Reported in small numbers from several known sites. However, one site in Vernon, Sussex County has yielded more than 30 in a day in late June or early July in four of the past ten years but a maximum of 4 or 5 in the other years.

6 This species seems to be highly restricted in NJ after historically being more widespread. It is probably vulnerable to wetland habitat changes.

Average Certainty: 6

Other

Individual Certainty Notes

Not indicated No Opinion

Not indicated No Opinion

Average Certainty: Not calculated

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	6	0	0	0	0	5.86

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty Notes

6 This species is vulnerable because of its very limited range in the state (primarily Walkill drainage in Sussex Co.) and its narrow habitat affinity (large, sedge-dominated wetlands).

Average Certainty: 6

Special Concern **% of Votes: 85.7**

Individual Certainty Notes

6 Present in a very few locations in northern New Jersey. Population sizes fluctuate.

It seems as if enough is known to doubt whether the species is secure in NJ, given the very few populations

4 and the decline seen in all the southern parts of its range. Uncertain because no definite threat is identified.

5 Vote based on comments from other voters. Not a South Jersey species and no records in SJBF data.

7 See round 1 panelist's reviews for species of concern. Could even considered threatened if there are a "few colonies" and a "couple meta populations."

6 Only known from a couple of metapopulations in Sussex County. Status should be monitored going forward.

7 Same assessment as per Round 1 comments.

Average Certainty: 5.83

Stable/Secure **NO VOTES**

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

SPECIES: *Aphrodite Fritillary*

Speyeria Aphrodite

No consensus reached

Proposed status: Referred to ENSAC

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	1	0	2	1	0	2	1	6
Round 2	0	1	2	2	0	0	2	5.71
Round 3	0	0	2	0	2	0	3	5.71
Round 4	0	0	0	0	4	1	2	6

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	1	0	2	1	0	2	1	6

Justifications:

Endangered

Individual Certainty	Notes
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6 Historic populations and current ones (?) can be considered rare and scattered. Hard to run numbers with this species because of the scarcity of it. Habitats aren't being managed.

Average Certainty: 6

Threatened

NO VOTES

Special Concern

Individual Certainty	Notes
6	Historically probably rare and local. Less common in the past few years than earlier in the decade. No more than one or two records in any recent year and absent in some. Possibly it may never have actually been resident.
4	Very rarely reported. Swamped by the similarly marked much more common Great Spangled Fritillary.
<u>Average Certainty: 5</u>	

Stable/Secure

Individual Certainty	Notes
7	Apparently Secure. This species seems to have not been ever abundant and turns up rather randomly Northern NJ. The reason for its rarity does not seem to be clearly understood.
<u>Average Certainty: 7</u>	

Other

Individual Certainty	Notes
7	Not Applicable: A peripheral species that may not be resident.
Not indicated	No Opinion
Not indicated	No Opinion
<u>Average Certainty: NA: 7</u>	

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	1	2	2	0	0	2	5.71

Justifications:

Endangered **NO VOTES**

Threatened **% of Votes: 14.3**

Individual Certainty	Notes
6	Looking at round 1 comments, it seems more data needs to be known about this species. If it is rare and local now, it should be at least species of concern.
<u>Average Certainty: 6</u>	

Special Concern **% of Votes: 28.6**

Individual Certainty	Notes
----------------------	-------

- 5 Very rarely reported. Swamped by the similarly marked much more common Great Spangled Fritillary. No known colonies—is this truly a resident species? Merits further study.
- 7 Same assessment as per Round 1 comments.

Average Certainty: 6

Stable/Secure

% of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

- 6 Apparently Secure- Always very rare with no more than a few recorded in any year. There seems to be no reason to believe that the rather random occurrences are diminishing in number.
- 5 Hard to evaluate because it seems a peripheral species, hard to separate from great spangled fritillary, and possibly not even a true resident, in which case "Not Applicable" would be a more appropriate vote.

Average Certainty: 5.5

Other

% of Votes: 28.6

Individual Certainty	Notes
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- 4 Not Applicable: No clear evidence that this species is or has been predictably present in New Jersey. U might be a better choice; given its presence in all surrounding states, it's hard to see how it is peripheral
- 7 Not Applicable: Extremely erratic occurrence and no known colony site—never more than one seen at a time. At periphery of range. I do not believe it is resident.

Average Certainty: 5.5

Consensus (85%) Reached in Round 2? **NO**

Round 3

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	0	2	0	3	5.71

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 28.6

Individual Certainty	Notes
----------------------	-------

- 6 Recently described species in the azure complex that D. Wright and H. Pavulaan are the only ones really qualified to assess azures in NJ. They have done a thorough assessment for all the species in the state including this one. No one else would come close to knowing the butterfly's status or distribution other than these two.
- 7 This is a complicated situation and this species warrants further study. It could easily be overlooked when mixed with Great Spangled Fritillaries that we may not know very much about it.

Average Certainty: 6.5

Stable/Secure NO VOTES

Other

% of Votes: 71.4

Individual Certainty	Notes
5	NOT APPLICABLE: Given the extreme low numbers of annual records and the unpredictable and scattered nature of their locations, I believe that this species is most probably not permanently resident in the state. This despite its presence in New York and Pennsylvania.
7	I do not believe that this species is resident in NJ—a question raised by 3 other commenters. Perhaps it is withdrawing north in response to climate change: In 1997 its abundance in NNJ was estimated at roughly one to every 200 Great Spangled Fritillaries (W. Wander, cited in Gochfeld and Burger 1997); since 2008 the Springdale 4JC has recorded 2854 Great Spangleds but only 1 Aphrodite.
4	UNKNOWN: Very rarely reported. Swamped by the similarly marked and much more common Great Spangled Fritillary. No known colonies. Not convinced this is a true resident species. Doesn't seem to be inherently vulnerable to environmental deterioration or habitat modification. Need more information.
6	UNKNOWN: U is best choice; given its presence in all surrounding states, it's hard to see how it is peripheral. U until evidence emerges that this species is resident or predictably present in New Jersey. SC is not supportable, since no threats are identified.
5	Comments from last Round suggest uncertainty that this is a resident species. It is so rarely reported, no colonies known, and so on. The panel seems very divided on this one. I would need more information to vote for one of the other categories.

Average Certainty: Unknown: 5
Not Applicable: 5.7

Consensus (85%) Reached in Round 3? **NO**

Round 4

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	4	1	2	6

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

% of Votes: 100

Individual Certainty	Notes
5	Not Applicable: As stated in Round 3: Given the extreme low numbers of annual records and the unpredictable and scattered nature of their locations, I believe that this species is most probably not permanently resident in the state. This despite its presence in New York and Pennsylvania.
	Unknown: Very rarely reported. Swamped by the similarly marked and much more common Great Spangled

- 4 Fritillary. No known colonies. Not convinced this is a true resident species. Doesn't seem to be inherently vulnerable to environmental deterioration or habitat modification. Need more information.
- 7 Not Applicable: I do not believe that this species is a permanent resident.
- 6 Unknown: U is best choice; given its presence in all surrounding states, it's hard to see how it is peripheral. I stay with U until evidence emerges that this species is resident or predictably present in New Jersey. SC is not supportable, since no threats are identified.
- 6 Changed my vote to "NO." I feel Erin Campbell from the University of Alberta is the only one who can answer this question. She is a graduate student under Felix Sperling who is one of the best phylogenetic lepidopterists in the world. Erin's research is about the Speyeria complex and from my understanding she used both mitochondrial DNA and genomic SNPs to compared phylogenic reconstruction with several morphological characters.
- 6 Almost all butterfly watchers use wing venation characteristics to identify a butterfly. Her research suggests you can't do that with this group looking at a whole species unless....you know the local variation very well. In other words great spangled frits can actually be this species or vice versa combined with other Speyeria! Thus, it would be silly to actually determine a species just by looking at it even when the genetics (let alone morphology) can't see a clear difference between species.
-but my understanding could always be wrong.
- 6 Unknown. Comments from panelists in both Round 2 & 3 suggest uncertainty that this is a resident species. It is so rarely reported, "swamped by great spangled," no colonies known, and so on.
- 8 Unknown: further research needed, only occasionally observed and usually only single individuals.

Average Certainty: 6

Consensus (85%) Reached? **NO**

Proposed Status: **Referred to ENSAC**

SPECIES: Regal Fritillary

Speyeria idalia

Consensus reached in Round 2

Proposed status: Not Applicable (Extirpated)*

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	0	0	0	2	5	7.5
Round 2	0	0	0	0	0	0	7	7.43

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	2	5	7.5

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

Individual Certainty	Notes
8	Not Applicable: <u>Extirpated</u> : Formerly resident. One reported from Staten Island in 1971†. No recent records. Eastern US population in deep trouble.
6	Not Applicable: <u>Extirpated</u> .
8	Not Applicable: <u>Extirpated</u>
8	Not Applicable: <u>Extirpated</u>
Not indicated	No Opinion
Not indicated	No Opinion
Not indicated	Not Applicable: <u>Historic</u>

Average Certainty: NA: 7.5

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	0	0	0	0	7	7.43

Justifications:

Endangered NO VOTES

Threatened NO VOTES

Special Concern NO VOTES

Stable/Secure NO VOTES

Other

% of Votes: 100

Individual Certainty	Notes
8	Not Applicable: <u>Extirpated</u>
6	Not Applicable: <u>Extirpated</u>
7	Not Applicable: No recent records. <u>Extirpated</u> .
8	Not Applicable: <u>Extirpated</u> .
7	Not Applicable: <u>Extirpated</u>
8	Not Applicable: <u>Extirpated</u> . Apparently no documented records within the past 30 years, and unlikely to be rediscovered or to recolonize naturally.
8	Same assessment as per Round 1 comments.

Average Certainty: 7.42

Consensus (85%) Reached in Round 2? **YES**

SPECIES: Hayhurst's Scallopwing

Staphylus hayhurstii

Consensus reached in Round 2

Proposed status: Secure

Tally and Overall Certainty per Round

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Overall Certainty
Round 1	0	0	2	5	0	0	0	5.57
Round 2	0	0	1	6	0	0	0	6.29

Round 1

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	2	5	0	0	0	5.57

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

Individual Certainty	Notes
6	Another species that may be more widespread than data indicate, because its very small size and flight behavior (remaining close to the ground in dense vegetation) make it hard to find.
6	They are around and common around host plants, specifically in Cape May County. Definitely a species to keep an eye on.
<u>Average Certainty: 6</u>	

Stable/Secure

Individual Certainty	Notes
5	Apparently Secure- Historically possibly overlooked†. Continues in modest numbers in southern New Jersey.
5	Apparently Secure- Uncommon and local but population in southern part of state appears to be stable.
4	Apparently Stable
7	Apparently Secure.
6	Apparently Secure. The SJBFB log has 240+ records from a wide variety of sites.
<u>Average Certainty: 5.4</u>	

Other **NO VOTES**

Consensus (85%) Reached in Round 1? **NO**

Round 2

Tallied Votes:

Status	Endangered	Threatened	Special Concern	Secure	Unknown	No Opinion	Not Applicable	Certainty
Count	0	0	1	6	0	0	0	6.29

Justifications:

Endangered **NO VOTES**

Threatened **NO VOTES**

Special Concern

% of Votes: 14.3

Individual Certainty	Notes
7	Though they may be “stable” in SNJ, they do not occur in or around the Pine Barrens which is taking a huge chunk of their range map away from SNJ. They are reliable in Cape May county, in “modest” numbers, but this is a species that should be kept an eye on.
<u>Average Certainty: 7</u>	

Stable/Secure

% of Votes: 85.7

Individual Certainty	Notes
6	Apparently Secure
6	No threats identified. Everything in the explanations points to apparent stability.
7	Comments from other voters have increased my confidence level. The SJBFL Log has 240+ records from a wide variety of sites.
5	Apparently Secure- Uncommon and local but population in southern part of state appears to be stable.
6	Apparently Secure- I defer to the opinions and data from South Jersey observers.
7	Same assessment as per Round 1 comments.

Average Certainty: 6.2

Other **NO VOTES**

Consensus (85%) Reached in Round 2? **YES**

Species Referred to ENSAC due to inability to reach 85% consensus

Scientific Name	Common Name	Previous Status	Recommended Status (ENSP)	"S" Rank
<i>Celastrina neglectamajor</i>	Appalachian Azure	Undetermined	Unknown	SU
<i>Amblyscirtes hegon</i>	Pepper and Salt Skipper	Undetermined	Threatened	S2
<i>Amblyscirtes vialis</i>	Common Roadside Skipper	Undetermined	Threatened	S2
<i>Hesperia attalus</i>	Dotted Skipper	Special Concern	Threatened	S2
<i>Hesperia leonardus</i>	Leonard's Skipper	Special Concern	Threatened	S2
<i>Neonympha mitchellii</i>	Mitchell's Satyr	Threatened	Threatened	S2
<i>Polygonia progne</i>	Gray Comma	Undetermined	Threatened	S2
<i>Pontia protodice</i>	Checkered White	Threatened	Special Concern	S3
<i>Problema bulenta</i>	Rare Skipper	Undetermined	Special Concern	S3
<i>Satyrrium edwardsii</i>	Edwards' Hairstreak	Undetermined	Apparently Secure	S4
<i>Satyrrium favonius ontario</i>	Northern Oak Hairstreak	Undetermined	Special Concern	S3
<i>Satyrrium titus</i>	Coral Hairstreak	Undetermined	Apparently Secure	S4
<i>Speyeria aphrodite</i>	Aphrodite Fritillary	Undetermined	Unknown	SU

Recommendation Justifications

Appalachian Azure- 3 Secure (apparently secure), 3 unknown. 1 no opinion. Secure argue that host plant is abundant and no real sign of decline or hard to ID so can't say for sure it's declining. Unknowns highlight lack of info to assign any status (multitude of apparent sightings may be wrong), S or otherwise. Consensus not to list.

ENSP Recommendation: Unknown

The Azure complex of species is a problematic group of species to work with due to identification and taxonomic uncertainties related to how the species and sub-species should be classified. The panel was unable to come to consensus on the status of this species in NJ and the ENSP will recommend this species to be listed as having an unknown status until further data is available to list it otherwise.

Pepper and Salt Skipper: 2 Endangered, 4 Threatened, 1 Special Concern. E argue that High Point colony is resident and stable, food source not threatened but species is indirectly managed for making E brings more credence to management in general. T argues only one strong colony and could be subject to mismanagement, restricted in NJ. SC argues that no specific threat is identified so hard to justify a listing higher than SC (can't take immediate action), it is scarce and on the edge of range so may even be NA.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the fact that the majority was in favor of this status and 6 out of 7 voted for either a Threatened or Endangered Status.

Common Roadside Skipper: 1 Endangered, 5 Threatened, 1 Special Concern. E doesn't want to compromise on a disappearing species, don't know cause for decline and cannot develop "clear plan of action" but can only draw attention to it, something a E status could possible do. T argue- small numbers, sporadic occurrences, moving to middle to try to compromise (at least 3 votes from E), habitat loss, not understood enough, state should protect. SC- reduced indigenous species but unknown threats, they form short-lived colonies and permanent which may explain "historic populations now lost), shouldn't list higher than SC until a plan of action can be developed (may cause more harm than good).

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the fact that the majority was in favor of this status and 6 out of 7 voted for either a Threatened or Endangered Status..

Dotted Skipper: 1 Endangered, 5 Threatened, 1 Special Concern. E argues drastic range reduction, difficult or inconsistent finding them in remaining areas. T argues only one reliable location with small numbers, uncommon and local but cannot ID reason for decline (habitat appears intact), hard to find, moving to middle to reach consensus. SC argues that small pop size is not enough evidence for imminent disappearance for a mobile butterfly that feeds on common plants but may be at risk due to poor land management.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the fact that the majority was in favor of this status and 6 out of 7 voted for either a Threatened or Endangered Status..

Leonard's Skipper: 2 Endangered, 5 Threatened. E argues historic populations extirpated or declining significantly. T argue sporadic sightings, habitat appears to be intact (despite decline in numbers), colonies persist despite low numbers, can't ID a specific threat, many moving from E to reach consensus.

ENSP Recommendation: Threatened

There is consensus to list this species from the Delphi review and ENSP recommends listing this species as Threatened based on the fact that the majority was in favor of this status.

Mitchell's Satyr: This species reached a not applicable consensus during round 2 for the reason that it is now extirpated from the State of NJ. However, this species is listed as Federally Threatened and warrants State listing to reflect its Federal status.

ENSP recommendation: Threatened.

Gray Comma: 5 Threatened, 1 Special Concern, 1 Unknown. Threatened argues used to be more widespread, rarely reported, new colony may not be stable or should be listed and moving towards middle. SC argues not enough data to suggest T due to unsteady presence in state.

ENSP Recommendation: Threatened

The majority of the panelists (5 out of 7) were in favor of a Threatened status and 6 out of 7 recommended listing this species. ENSP recommends a Threatened status for this species.

Checked White: 1 Threatened, 2 Unknown, 4 Not applicable. Divided as to whether it is resident, etc.

ENSP Recommendation: Special Concern

This species generated a great deal of discussion and different opinions within the panel. It has been a resident species for some time with extensive historic records and a persistent population at the Newark Airport (this fact was disagreed upon by some panelists). The establishment, eruption, and subsequent decline of a large population in Southern New Jersey from 2011 through 2014 shows that this species is able to colonize and fully occupy suitable habitat when it becomes available. This also shows the complexity of dealing with eruptive species that utilize highly disturbed habitats (preferred habitats including landfills, airports, roadsides, fallow fields, etc). Due to the species' current threatened status and that this species is highly restricted within NJ after years of extensive declines; the ENSP recommends this species be listed as a species of Special Concern.

Rare Skipper: 2 Special Concern, 5 Secure. SC argue population estimates it may not be stable due to anecdotal nature of population studies, sea level rise may be a threat, G2 status in NJ and rarity around NJ justifies listing despite possible security within state. Secure argue moving towards consensus, locally common, stable in NJ despite declines elsewhere, threats outlined are not imminent.

ENSP Recommendation: Special Concern

The majority (5 out of 7) of the panelists voted for this species to be listed as apparently secure. The arguments for listing versus not listing were divided along the lines of the species' status in NJ versus range-wide. Within NJ, this species is reasonably secure and can generally be found in suitable habitat. The ENSP would recommend that this species be listed as a Special Concern due to the fact that this species is of regional concern which goes beyond the considerations of this status review that focused on the species' situation within NJ.

Edwards' Hairstreak: 2 Special Concern, 5 Secure (apparently secure). No one wants to give.

ENSP Recommendation: Apparently Secure

The majority (5 out of 7) of the panelists voted for this species to be listed as apparently secure and the ENSP recommends it be listed as such until further data is available to list otherwise.

Northern Oak Hairstreak: 5 Special Concern, 2 Secure (apparently secure). Some SC want higher ranks, secure votes argue that it is hard to ID so doesn't warrant listing.

ENSP Recommendation: Special Concern

The majority (5 out of 7) of the panelists voted for this species to be listed as Special Concern and ENSP will recommend it be listed as Special Concern. By definition special concern species can include any species that warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result

in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state

Coral Hairstreak: 2 Special Concern, 5 Secure (apparently secure). No one wants to give.

ENSP Recommendation: Apparently Secure

The majority (5 out of 7) of the panelists voted for this species to be listed as apparently secure and the ENSP recommends it be listed as such until further data is available to list otherwise.

Aphrodite Fritillary: 4 unknown, 1 no opinion, 2 not applicable. Most arguments are difficult ID, or unknown as to permanent residency. Consensus not to list.

ENSP Recommendation: Unknown

The panel could not come to consensus on the status of this species in NJ and opinions leaned towards an unknown status in NJ. ENSP recommends this species to be listed as having an unknown status until further data is available to list it otherwise.

Resources:

Cited Sources

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