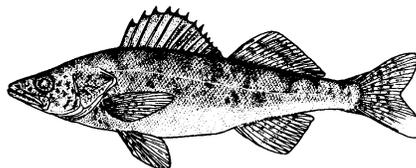# Walleye *(Stizostedion vitreum)*

| General Information |
|---|
| Walleye are found in only a few northern locations within the state.  They were introduced to increase fishing diversity. Waters include Delaware River, Greenwood Lake, Monksville Reservoir, Lake Hopatcong, Big Swartswood Lake & Canistear Reservoir. |

| Native Range | Found in drainages east of the Rocky Mountains & west Appalachians but widely introduced in reservoirs outside its native range. (McMahon and Terrell 1984) |
|---|---|

| Habitat Description |
|---|
| **Lake:** moderate to large coolwater lakes (> 100 ha) of moderate productivity (mesotrophic) with extensive littoral areas and large areas of rocky substrate.  25 - 45 % of surface area should provide cover in the way of boulders, logs, brush and vegetation. Photosensitive so they prefer moderately turbid conditions.  In clear conditions require additional cover. Travel in loose schools. (McMahon and Terrell 1984; Scott and Crossman 1973)) |
| **River:** large, deep, cool streams with moderate turbidity (Scott and Crossman 1973) |

| Optimum Habitat Requirements | |
|---|---|
| Dissolved Oxygen | > 5 mg/l |
| Temperature | $20^o$ - $24^o$ C |
| pH | 6.0 - 9.0 |
| Turbidity | |
| Current | |

| Diet | |
|---|---|
| Fry | zooplankton & aquatic insects |
| Juveniles | primarily fish, some invertebrates |
| Adults | primarily fish, some invertebrates |
| Notes: | |

| Growth (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Age | I | II | III | IV | V | VI | VII |
| Male | --- | 361 | 424 | 460 | 493 | 513 | 536 |
| Female | **---** | 379 | 445 | 513 | 541 | 566 | 645 |
| Growth data is the observed mean length at age during spawning in Monksville reservoir from 1990 - 1995. | | | | | | | |

| Reproduction | | | |
|---|---|---|---|
| Time of Year | March - April | Age Males Mature | II |
| Temperature Range | $7^o$ - $9^o$ C | Age Females Mature | III |
| Water Depth | | Nest | none |
| Substrate | gravel, rock | Egg Type | |
| Time of Day | night | Parental Care | none |
| Critical pH | 5.5 | Days to Hatching | 12-18 |
| Vegetation | not required | Stable Water Level | stable to rising critical |
| Notes: lake populations migrate up tributaries to spawn, or spawn on gravel shoals, winter temperatures of < $10^o$ C are required for proper gonad maturation.  Prefer shallow shorelines, riffle areas with good water circulation for spawning. (McMahon and Terrell1984; Scott and Crossman 1973) | | | |