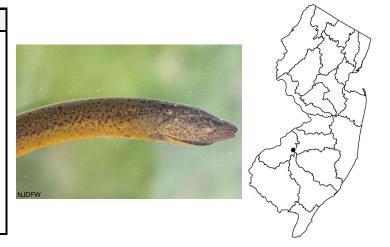
Asian Swamp Eel (Monopterus albus)

Historical Presence	Abundance	Life History	Management
Exotic	Rare	Freshwater	Invasive

General Information

An eel-like body with no fins, tiny eyes, and triangular shaped gill silt on throat. Likely introduced from food sources or aquaculture, this invasive primitive predator is only found in Spring Lake, NJ, where NJDFW conducts regular removal via electrofishing to control the population. It can survive out of water for several days, breathe air in low-oxygen environments, and reverse-sex as necessary. It is particularly damaging because it can establish in virtually any waterbody where it is introduced. Displacement of native species as a result of competition is a concern.



Geographic Range Native to Asia from n. India and Burma to China, likely Russia, Japan, and Indo-Malay Archipelago. Established in n. GA and s. FL. Found in Spring Lake, NJ (2008).

Habitat Description

Slow moving, heavily vegetated waterbodies including pools of tannic, mud-bottomed streams and rivers; marshes, wetlands, ditches, canals, ponds and other impoundments.

Optimum Habitat Requirements			
Dissolved Oxygen	Tolerant of low DO		
Temperature	25 – 31 °C		
рН	5 – 7		
Turbidity	Tolerant of turbid conditions		
Current	Low		

Diet		
Fry Invertebrates		
Juveniles	Invertebrates	
Adults	Fish, crustaceans, invertebrates	

Notes: A voracious predator, consuming a wide range of prey.

Reproduction				
Time of Year	Year round, temp. dependent		Age Males Mature	
Temperature Range	25 – 31 °C		Age Females Mature	1 – 3
Water Depth	Surface		Nest	Breeding burrow, bubble nest
Substrate	Mud		Egg Type	Demersal
Time of Day	Night		Parental Care	Male guards
Critical pH			Days to Hatching	6 – 9
Velocity Range	None		Oxygen Level	
Notes: All individuals are born and mature as females and some later transform into males.				

Size and Growth
Maximum size up to 1020 mm. Maximum longevity is 10 years of age.

References

(Liem 1963; Guan et al. 1996; Freeman et al. 2005; Shafland et al. 2009)

- Freeman, B. J., C. A. Straight, T. R. Reinert, and J. Shelton. 2005. Ecological investigations of the Asian Swamp Eel, *Monopterus* sp. *cf. albus*, in the Chattahoochee Nature Center and adjacent marsh, Fulton County, Georgia. Final report submitted to US Fish and Wildlife Service and National Park Service. Institute of Ecology, University of Georgia, Athens, GA.
- Guan, R. Z., L. H. Zhou, G. H. Cui, and X. H. Feng. 1996. Studies on the artificial propagation of *Monopterus albus* (Zuiew). Aquaculture Research 27(8):587–596.
- Liem, K. F. 1963. Sex reversal as a natural process in the synbranchiform fish *Monopterus albus*. Copeia:303–312.
- Shafland, P. L., K. B. Gestring, and M. S. Stanford. 2009. An assessment of the Asian swamp eel (*Monopterus albus*) in Florida. Reviews in Fisheries Science 18(1):25–39.