NORTHERN SNAKEHEAD
[*Channa argus* Cantor]

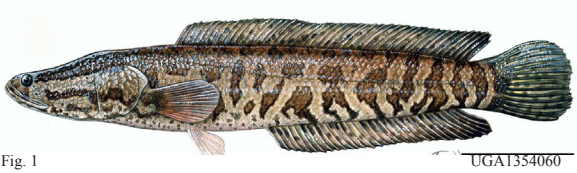

Fig. 1 UGA1354060

Problem: The northern snakehead (*Channa argus*) is a freshwater fish that is native to parts of China, Russia, South Korea, and North Korea (Fig. 1, Fig. 2, & Fig. 3)[1,2,3,4]. Northern snakeheads are predators that have the potential to cause major environmental disturbance in areas that they have been introduced.[2,3] Post-larva individuals eat plankton, juveniles feed on small crustaceans and fish larvae, and adults feed on fish, amphibians, insects, and crustaceans.[1,3] Fifteen different fish species have been observed in the stomach contents of adult snakehead from the Potomac River.[4] This fish was found in a lake that connects to the Delaware River in Philadelphia County, Pennsylvania in 2004.[2]

Identification: Northern snakeheads are long and cylindrical fish that can exceed 85 cm in length.[1,2,3,4] They have dark blotchy patches on their sides and saddle-like patches on top.[1,3,4,5] They have long dorsal and anal fins. [1,3,4,5] The head is tapered with a large mouth containing canine-like teeth (Fig. 2). [1,3,4,5] The caudal fin is slightly truncated. [5]

Signs and Symptoms: Most northern snakehead detections have been reported in the US from fishermen catching the fish and reporting them to authorities.[2] This species can live in slow-moving streams, canals, rivers, ponds, and lakes.[1,2,3,4,5] Any northern snakeheads that are caught should be killed and frozen until a fish taxonomist can confirm the identification.[2]

Fig. 2 UGA 1354058

PEST

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Fig. 3 UGA 1354053

Similar Species: There are two fish species that could be confused with northern snakehead, bowfin (*Amia calva*) and burbot (*Lota lota*).[2,6] Bowfin (Fig. 4) can be distinguished most readily by its short anal fin. Bowfin lack scales on the head, have a lower jaw that is shorter than the upper, a rounded caudal fin, and in the case of males and juveniles there is a black spot with a yellow or orange boarder at the base of the tail.[2,6] Burbot does not occur in the Delaware River, but can be easily distinguished from northern snakehead by a solitary barbel (whisker) on their chin which the northern snakehead lacks. Burbot also have two dorsal fins as opposed to one.[2]

Fig. 4 WV-DR-60-

[*Channa argus* Cantor]
(northern snakehead)

Text Citations:

1. Courtenay, W.R., Jr., and J.D. Williams. 2004. Snakeheads (Pisces, Channidae): A biological synopsis and risk assessment. U.S. Geological Survey Circular 1251
2. "Northern Snakehead - Pennsylvania Information." Northern Snakehead - Pennsylvania Information. Pennsylvania Fish and Boat Commission, 2012. Web. 27 Nov. 2012. <http://fishandboat.com/water/fish/snakehead/snakehead.htm>.
3. Billerbeck, Joseph J. "Native Aquatic Species of the Gila River Basin in Arizona and New Mexico, Non-native Species Profiles: Flathead Catfish (Pylodictis olivaris)." Bureau of Reclamation: Lower Colorado Region. N.p., 25 June 2009. Web. 25 Nov. 2012. <http://www.usbr.gov/lc/phoenix/biology/azfish/catfish.html>.
4. Odenkirk, J. and S. Owens. 2005. Northern snakeheads in the tidal Potomac River system. Transactions of the American Fisheries Society 134:1605-1609.
5. "Channa Argus." USGS Southeast Ecological Science Center. United States Geological Survey, 7 Jan. 2011. Web. 25 Nov. 2012. <http://fl.biology.usgs.gov/Snakehead_circ_1251/html/channa_argus.html>.
6. "Recognizing Northern Snakehead." U.S. Fish and Wildlife Service, Sept. 2003. Web. 25 Nov. 2012. <http://anstaskforce.gov/Education/Snakehead_Final%20from%20RO.pdf>.

Photograph Information:

Figure 1 Susan Trammell, Bugwood.org

Figure 2 U.S. Geological Survey Archive, U.S. Geological Survey, Bugwood.org

Figure 3 U.S. Geological Survey Archive, U.S. Geological Survey, Bugwood.org

Figure 4 Duane Raver, US Fish and Wildlife Service National Digital Library