

***Bidens* Achenes Cause Mortality in Young Muskellunge and Walleyes**

The lodging of achenes of beggar-ticks (*Bidens* sp.) in the heads of chinook salmon (*Oncorhynchus tshawytscha*) and reidside shiners (*Richardsonius balteatus*) in the Columbia and Willamette rivers, Oregon, was reported by Reimers and Bond (1966). They suggested that, because the barbed achenes are often abundant in water and can lodge in the heads of juvenile fish attempting to feed on them, the presence of *Bidens* on the banks of hatchery ponds might cause mortality of young fish. This suggestion was later confirmed when fingerling coho salmon (*O. kisutch*) at the Platte River Rearing Station, Michigan, were observed dying with beggar-ticks imbedded in the pharynx (Allison 1967).



Fig. 1. *Bidens* achenes lodged in the head of a young muskellunge (upper) and walleye (lower).

I reared fry of muskellunge (*Esox masquinongy*) and walleyes (*Stizostedion vitreum vitreum*) in tanks by feeding them invertebrates collected from sewage lagoons. Because *Bidens* was present on the banks of the lagoons, its achenes were often abundant in the collected food. When achenes were inadvertently added with the food to the rearing tanks, both the young muskellunge and walleyes struck at them. The achenes became lodged in the head and prevented the fish from feeding, which ultimately resulted in their death (Fig. 1). The fish appeared to be attracted to the achenes even in the presence of large quantities of food. I concur with Reimers and Bond (1966) that *Bidens* in areas where fish are cultured can cause death of young fish.

References

- Allison, L. N. 1967. Beggar-ticks cause mortality among fingerling coho salmon. *Prog. Fish-Cult.* 29:113.
- Reimers, P. E., and C. E. Bond. 1966. Occurrence of the *Bidens* (sp.) achene in the snout of chinook salmon and reidside shiners. *Prog. Fish-Cult.* 28:62.

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