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*US Fish and Wildlife Service*

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## ***Polypodium* Sp. (Coelenterata) Found in North American Sturgeon**

On 27 May 1970, Mason Shouder, Michigan Fisheries Biologist, discovered some abnormal eggs in a ripe sturgeon, *Acipenser fulvescens*. The fish were taken from the Black River near Cheboygan, Michigan, which is barricaded from Lake Huron by a dam built in the 1920's. Normal ripe eggs were black spheres; the abnormal ones were enlarged and grayish (Fig. 1). About 20% of the eggs were affected and attached to the wall of the uterus in saclike structures. The ovary was also abnormal, being flaccid. In May 1973, a single infected egg was found in vodka-pre-

served eggs from a ripe sturgeon from the same locality; only one of 1,391 eggs (0.07%) was found infected.

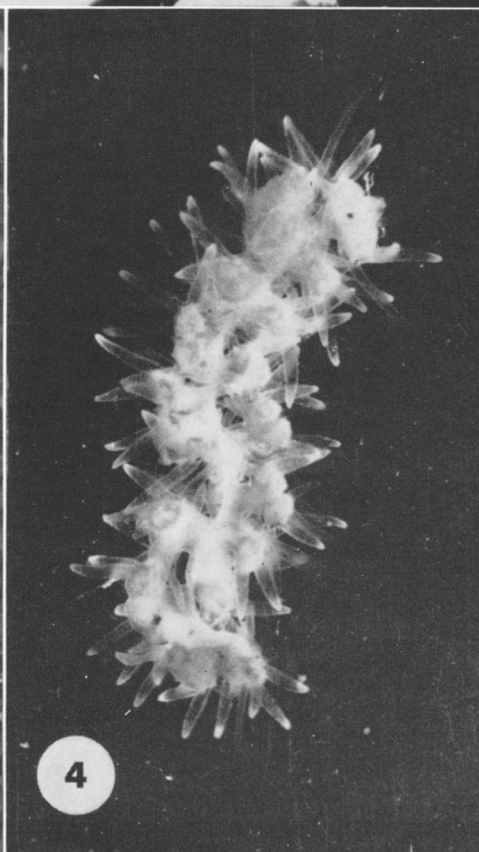
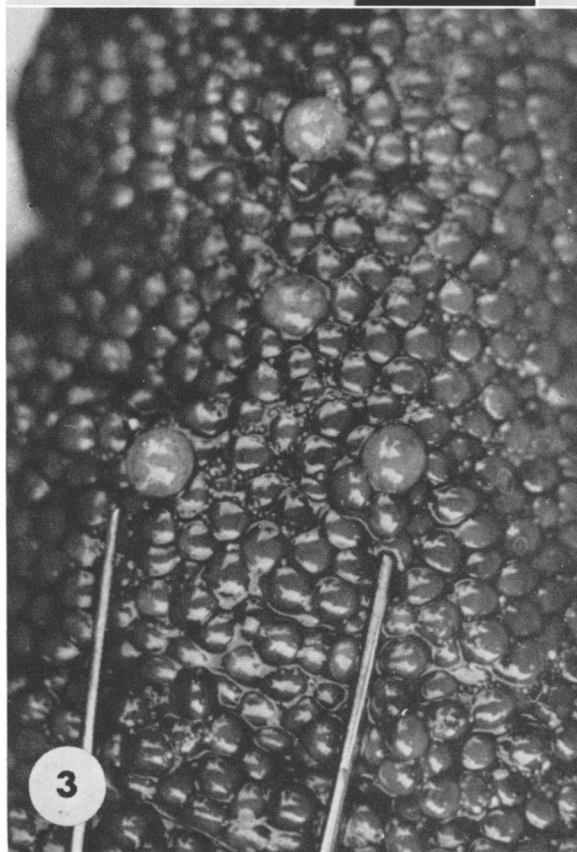
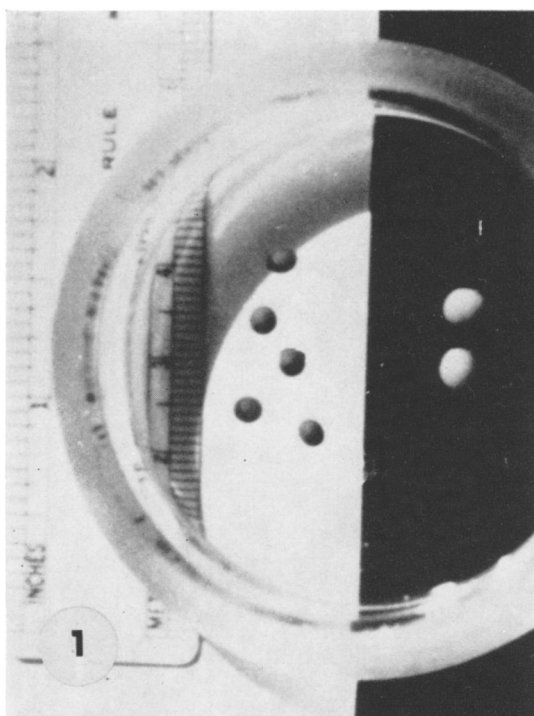
The abnormal eggs contain the mature stolon stage of *Polypodium* sp. (Fig. 2). The stolon is a white elongate structure, 1.3 mm in diameter, and has many fingerlike tentacles 0.87 to 1.2 mm long by 0.17 to 0.087 mm diameter. No intact stolons were available for length measurement.

*Polypodium hydriforme* Ussov, 1885 (Figs. 3-5) has been reported from *Acipenser* spp. from some of the major rivers of the USSR

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FIGURES 1, 2. A coelenterate parasite of sturgeon eggs from Michigan. 1. Enlarged gray eggs on the right contain mature stolons of *Polypodium* sp. Normal black eggs are on the left. 2. Eggs infected with *Polypodium* sp. Egg at lower left is still intact; egg at upper right has been torn to release fragments of the parasite.

FIGURES 3, 4. *Polypodium hydriforme* from Russian *Acipenser ruthenus* (Raikova, 1958, Zool. Zhurnal 37: 345-358). 3. Sterlet eggs. Enlarged gray ones contain stolons. 4. Mature stolon.



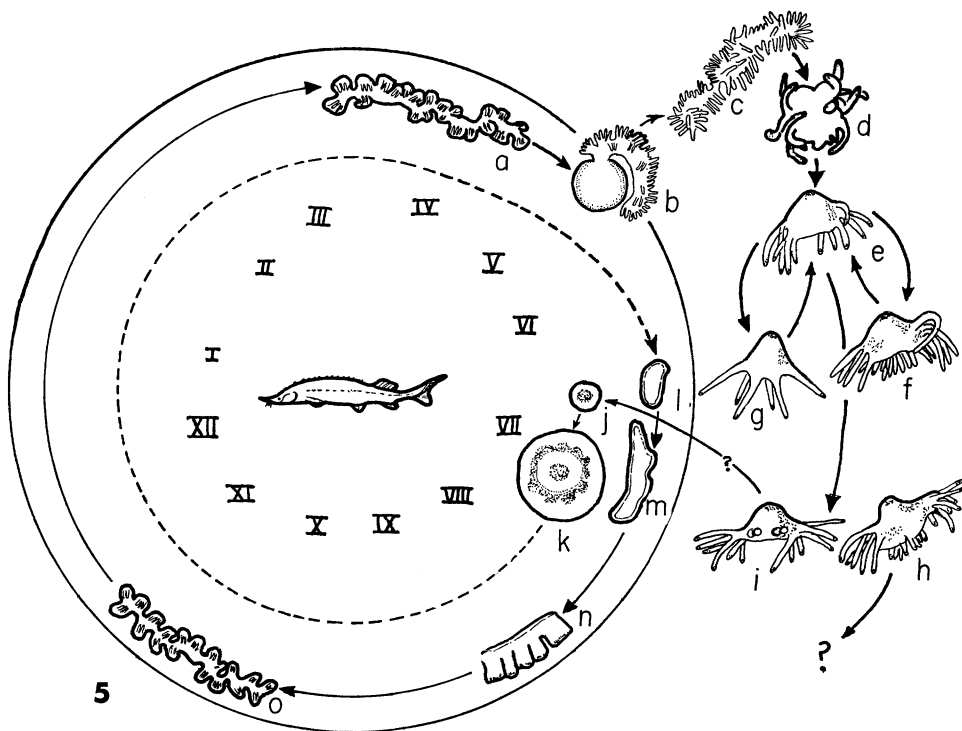


FIGURE 5. Life cycle of Soviet *Polypodium hydriforme*. Roman numerals represent months. (a) Mature stolon with internal tentacles from egg before spawning. (b) Stolon with external tentacles emerging from egg at time of spawning. (c) Free stolon. (d-i) Stolon becomes polyp which may divide; route back to fish is unknown. (j-k) Early embryonic stages in egg. (l-n) Juvenile stolons. (o) Stolon with internal tentacles. (Modified from Raikova, 1958, *Zool. Zhurnal* **37**: 345-358.)

(Raikova, in Bykhovskaya-Pavlovskaya et al., 1962, *Key to Parasites of Freshwater Fish of the USSR*, Zool. Inst., Acad. Sci. USSR; Eng. transl. No. TT64-11040, O.T.S., U. S. Dept. Commerce, Washington, D. C., 1964, 919 p.). It has also been reported from the Danube River in Rumania [Bogatu, 1961, *Un car de infesatie cu Polypodium hydriforme* Ussov, 1885, la cega (*Acipenser ruthenus* G) din Danăre. *Bull. Inst. Cercetări Si proiectări piscicola* **20** (11): 54-59].

This is the first North American record of

*Polypodium* sp. If more material becomes available, species determination will be attempted. With the current price of caviar \$100/lb this may be a very important fish parasite. We would appreciate receiving additional material.

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