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182:975-981.

- McRoy, C. P. 1966. The standing stock and ecology of eelgrass, *Zostera marina*, Izembek Lagoon, Alaska. M.S. thesis, Univ. Wash., Seattle. 138 pp.
- Montz, G. N. 1978. The submerged vegetation of Lake Pontchartrain, La. *Castanea* 43-115-128.
- National Estuary Study. 1970. U.S. Department of the Interior, Vol. 1, Fish and Wildlife Service.
- Perrett, W., B. Barrett, W. Latapie, J. Pollard, W. Mock, G. Adkins, W. Gaidry, and C. White. 1971. Cooperative Gulf of Mexico Estuarine Inventory and Study, Louisiana, Phase 1. Area Description. Louisiana Wildlife and Fisheries Commission, New Orleans.
- Schubel, J. R. 1973. Some comments on seagrasses and sedimentary processes. Chesapeake Bay Institute Spec. Rept. No. 33. 32 pp.
- Stevenson, J. C., and N. M. Confer. 1978. Summary of available information on Chesapeake Bay submerged vegetation. U.S. Fish and Wildlife Serv. Publ. FWS/OBS — 78/66. U.S. Dept. Interior, Washington, D.C. 335 pp.
- Suttkus, R., R. Darnell and J. Darnell. 1954. Biological study of Lake Pontchartrain, Louisiana. Tulane University. Unpublished manuscript.
- Zieman, J. C. 1968. A study of the growth and decomposition of the seagrass, *Thalassia testudinum*. M.S. thesis, Univ. Miami. 50 pp.
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FIRST RECORD OF THE SEA LAMPREY, *Petromyzon marinus* L., IN THE GULF OF MEXICO

The sea lamprey, *Petromyzon marinus*, has a very wide distribution, occurring throughout western Europe, North Africa (Algeria) and along the Atlantic drainages of North America. However in North America it was reported only as far south as northern Florida (Bigelow and Schroeder, 1948; Potter and Beamish, 1977).

In the present note we are reporting an extension of the known range of this species into the Gulf of Mexico. The record is based on a single specimen received on loan from the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Collection details are as follows:

Locality — Cape San Blas, tidal pond near point, Florida, Gulf of Mexico basin.

Date — June 20, 1932.

Collector— Issac Ginsburg

In order to verify this record Janet R. Gomon, Museum Specialist, Division of Fishes, Smithsonian Institution, checked their ichthyological files and confirmed that Isaac Ginsburg worked in the Gulf of Mexico for the Fish and Wildlife Service during the time in question. Dr. Lachner, also of the Smithsonian Institution recalls that Ginsburg worked with Gordon Gunter in the Gulf region.

The specimen, 136 mm in total length, had almost completed metamorphosis, but did not reach macrophthalmia stage, as yet. The fimbriae on the anterior margin of the disc were poorly developed and teeth were not cornified though could be counted.

Body proportions, expressed as a percentage of total length (after Vladykov and Follett, 1965) are as follows: pre-branchial length 11.8; branchial length 8.1;

disc length 6.3; eye length 2.9; trunk length 43.4; tail length 28.7. It has 68 trunk myomeres.

The incomplete metamorphosis, along with small size and inshore location, suggest that it had recently descended from a nearby river, perhaps the Apalachicola River. All this indicates that *P. marinus* breeds in tributaries of the Gulf of Mexico. Therefore, it is unlikely that this specimen is a stray individual or one which has been brought to the area attached to some fish or other object.

Extensive sampling of nearby rivers, especially for ammocoetes should be undertaken to determine the distribution of *P. marinus* in the Gulf of Mexico. Ammocoetes of the sea lamprey can easily be separated from other lamprey species, known to occur in the area, by high number of trunk myomeres (67-74 in *P. marinus*).

Other species, reported from the watersheds of the Gulf of Mexico, are characterized by having low myomere counts: *Ichthyomyzon gagei* has 49-59 myomeres and *I. castaneus* 49-57 myomeres (Hubbs and Trautman, 1937; Dendy and Scott, 1953; Cook, 1959; Douglas, 1974, *Lethenteron meridionale* 50-58 myomeres and *Lampetra aepyptera* 50-60 myomeres (Smith-Vaniz, 1968; Vladykov *et al.*, 1975).

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LITERATURE CITED

- Bigelow, H.B. and W.C. Schroeder. 1948. Fishes of the Western North Atlantic. Cyclostomes. Mem. Sears Fdn. Mar. Res., 1(1):29-58.
- Cook, F.A. 1959. Freshwater fishes in Mississippi. Miss. Game and Fish Comm., Jackson, Miss. 239 pp.
- Dendy, A. and D.C. Scott. 1953. Distribution, life history and morphological variations of the southern brook lamprey, *Ichthyomyzon gagei*. Copeia 1953: 152-162.
- Douglas, N.H. 1974. Freshwater fishes of Louisiana. Claitor's Publishing Division. Baton Rouge, Louisiana, xiii, 443 pp.
- Hubbs, C.L. and M.B. Trautman. 1937. A revision of the lamprey genus *Ichthyomyzon*. Misc. Publ. Mus. Zool. Univ. Mich. 35, 109 pp.
- Potter, I.C. and F.W.H. Beamish. 1977. The freshwater biology of adult anadromous sea lampreys, *Petromyzon marinus*. J. Zool., London, 181:113-130.
- Smith-Vaniz, W.F. 1968. Freshwater fishes of Alabama. Auburn University, vii, 211 pp.
- Vladykov, V.D. and W.I. Follett. 1965. *Lampetra richardsoni*, a new nonparasitic species of lamprey (Petromyzonidae) from western North America. J. Fish. Res. Board Can. 22:139-158.
- _____, E. Kott, and S. Pharand-Coad. 1975. A new nonparasitic species of lamprey, genus *Lethenteron* (Petromyzonidae), from eastern tributaries of the Gulf of Mexico, U.S.A. Natl. Mus. Can., Natl. Mus. Nat. Sci. (Ottawa) Publ. Zoo. 12, 36 pp.
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