

Scapular bones not visible externally. Pectoral fin, broad, separated by a rounded triangular space from the operculum, nearly straight above, rounded below, composed of eleven rays, the two lower soft and simple. Ventrals, consisting each of a stout spine, with the base sheathed in the integument. Pelvic bones, very narrow and pointed backward, thickly covered by integument. Dorsal spines, 5 or 6 (in so far as observed, 5 in the female, 6 in the male); short, stout, and with broad, triangular membranes; anterior spine shortest; spines usually only partially erected, and, when depressed, concealed in the dorsal groove; second dorsal of ten rays, second and third longest; the others rapidly diminishing toward the posterior end of the fin. Anal fin with one detached, curved, stout, membraned spine in front, in form similar to dorsal, and with ten rays. Caudal fin, broad at base, even posteriorly, of fourteen rays. First dorsal spine, above the insertion of the pectoral fin; last, above the beginning of the anal fin. Colour above, dull dark olive, with irregular darker blotches; abdominal region and lower part of gill-covers, pearly gray. Whole body dotted with minute black points. Male darker than female.

This species is found plentifully in most of the small streams near Montreal. Its food appears to consist principally of minute worms and crustacea. Its armature of spines and quickness in hiding enable it to inhabit with safety very shallow and exposed places; but it is easily taken with a dip-net, and great numbers are captured by young anglers for bait. It is easily kept in aquaria, finding its food in the minute inhabitants of the water, if a few tufts of algæ are kept to shelter and feed them. It has however the bad character of attacking and destroying other small fishes with its formidable spines.

I am indebted to Mr. Putnam, assistant to Prof. Agassiz in the Museum of Comparative Anatomy at Cambridge, for comparing this species with specimens in that collection or described in the United States. It is nearly allied to *G. millepunctatus* of Ayres.

I am indebted for the outline in Figure 1, to Mr. R. J. Fowler, who has been so successful in representing our larger Canadian fishes.