

Family Centrarchidae

Sunfishes

A small family comprising approximately 50 species in eight genera native to North America, extending from Alaska to southern Mexico. In West Asia, they are distinguished from Cichlidae by the presence of a single continuous lateral line (vs. lateral line interrupted, with the anterior part of the line situated at a higher level on the body than the posterior part) and the absence of pharyngeal tooth plates (vs. presence). They are distinguished from Percidae by having 2–6 anal spines (vs. 1–2), and from *Dicentrarchus* (Moronidae) by the absence of auxiliary rows of lateral-line scales on the caudal (vs. presence), and from both by having only a single dorsal (vs. 2). Two species of Centrarchidae have established in West Asia. *Lepomis gibbosus* is the most widespread, while *Micropterus nigricans* has only been introduced to Cyprus. Additional species may be introduced in the future, and it is anticipated that *Micropterus* will be stocked illegally elsewhere. **Further reading.** Page & Burr 1991 (identification); Jenkins & Burkhead 1993 (identification); Kim et al. 2022 (*Micropterus* diversity).

Lepomis gibbosus

Common name. Pumpkinseed.

Diagnosis. Distinguished from *Micropterus nigricans* by:
● flank blueish with many orange blotches and spots, usually

with indistinct dark-blue bars / ● head yellowish, orange, or brown with bright blue stripes or marmorated pattern / ● opercular flap with red margin at tip and white margin at upper and lower edge / ○ 36–47 lateral-line scales on body / ● no lateral stripe or series of blotches / ● mouth small, upper jaw length about equal to eye diameter. Size up to 320 mm SL.

Distribution. Western and northern Anatolia, and Cyprus. Native to North America, in Great Lakes, St. Lawrence and upper Mississippi drainages, and Atlantic basin. Widely introduced in temperate waters in Europe since 1880s as a pond and aquarium fish. Now widely distributed throughout Europe, particularly in Mediterranean countries.

Habitat. Slow-flowing to still waters such as large rivers, lakes, ponds, canals, and backwaters. Avoid swift waters. In estuaries with salinity up to 18 ‰.

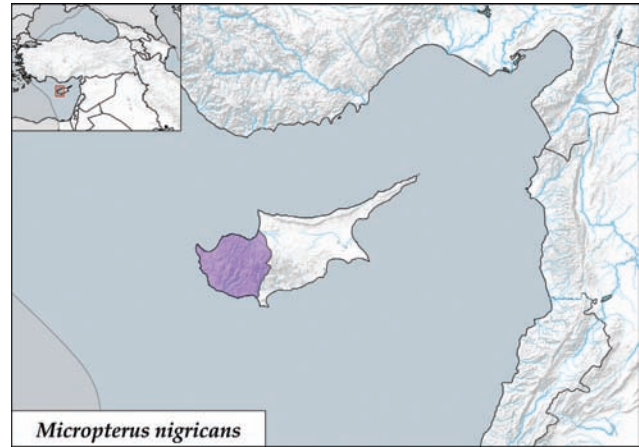
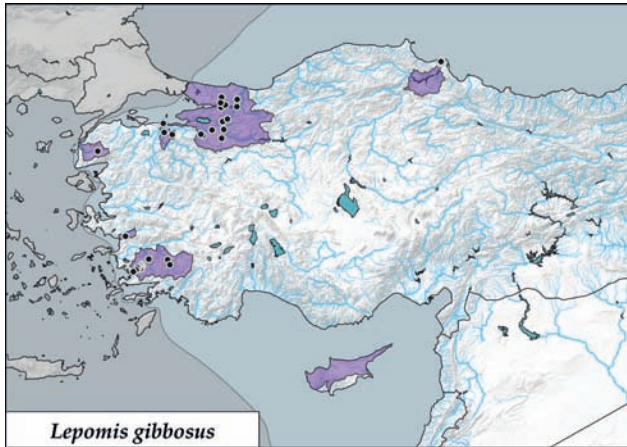
Biology. Lives up to 8 years. First spawns at 1–3 years. Spawns April–June when temperatures reach 16–18°C. Male fan and defend nests, which are shallow depressions in sand or gravel on shallow shores. Nests in colonies in sunny open habitats. Each male may spawn with several females in one nest and will guard nest until abandoned by larvae. Feeds on a wide variety of invertebrates.

Conservation status. Non-native; mostly spread as a weed with stocked fish for fisheries.

Further reading. Jenkins & Burkhead 1993 (biology).



Lepomis gibbosus; Oum er Rbia drainage, Morocco; ~100 mm SL.



Micropterus nigricans; Lago di Nemi, Italy; ~150 mm SL.

Micropterus nigricans

Common name. Largemouth bass.

Diagnosis. Distinguished from *Lepomis gibbosus* by: ● 55–68 lateral-line scales on body / ● one prominent lateral stripe or series of closely set blotches / ● mouth large, upper jaw length greater than eye diameter. Size up to 650 mm SL.

Distribution. Introduced and established in Cyprus. Native to North America, Great Lakes, St. Lawrence and Mississippi drainages, Gulf of Mexico, and southern Atlantic basins. Introduced to Europe in 1883 and widespread especially in Mediterranean basin.

Habitat. Slow-flowing to still waters such as large rivers, lakes, canals, and backwaters. Avoids fast-flowing waters. In estuaries with salinity up to 13 ‰.

Biology. Biology very well studied in North America, understudied in Europe and West Asia. Lives up to 16 years. First spawns at 1–4 years. Spawns April–June when

temperatures reach 16–18°C. Male fan and defend nests, which are shallow depressions in sand or gravel bottoms. Male or both sexes guard nests and free-swimming larvae for a few days. Juveniles feed on invertebrates, taking more fish as they grow older. Adults piscivorous.

Conservation status. Non-native; introduced for recreational fisheries. Responsible for decline of several endemic fish species in Spain.

Remarks. The diversity of *Micropterus* in North America has been significantly underestimated, with 19 species currently recognised, 14 of which have been described. A review of diversity of *Micropterus* revealed that the largemouth bass introduced to North Africa, Europe, and Cyprus was not identified as *M. salmoides* but as *M. nigricans*, a species previously treated as a synonym.

Further reading. Jenkins & Burkhead 1993 (biology); Boschung & Mayden 2004 (biology); Kim et al. 2022 (*Micropterus* diversity).