

Family Blenniidae

Combtooth Blennies

A diverse group of small marine fishes, comprising approximately 60 genera and 400 species, distributed throughout all tropical and temperate waters. They are typically found in shallow waters, on or near rocks or stone bottoms. A few species have adapted to estuarine and freshwater habitats. Blennies are characterised by pelvic fins anterior to the pectorals, with a single spine embedded in the skin and 2–4 rays. They also have a scaleless skin, numerous comb-like teeth, and long dorsal and anal fins. The freshwater blennies of West Asia were previously classified in the genus *Salaria*, which is now restricted to marine species, *S. basilisca*, endemic to the

Mediterranean, and *S. pavo*, that occurs in the Eastern Atlantic and Mediterranean. The correct generic name for the five freshwater blennies previously placed in *Salaria* is now *Salariopsis*. These are: *S. economidisi* endemic to Greece, *S. atlantica* is endemic to Morocco, and the other three species occur in the area covered by this book. *Salaria pavo* is sometimes listed as a freshwater species. It effectively enters lagoons and brackish waters but has not been recorded from true freshwater habitats and is included here only in the key. **Further reading.** Springer 1968 (systematics); Wirtz 1976 (key); Bath 1977 (systematics); Duquenne-Delobel et al. 2022 (*Ichthyocoris*); Vecchioni et al. 2022 (phylogeny, *Salariopsis*); Yoğurtçuoğlu et al. 2023 (diversity).

Key to species of *Salaria* and *Salariopsis* in fresh and brackish waters of West Asia

1a - A large, oval, dark-grey blotch behind eye; 2 spines and 23–25 rays in anal; 12 spines and 22–25 rays in dorsal (occasionally in estuaries in brackish water).

.....*S. pavo*

1b - No large, oval, dark-grey blotch behind eye; 2 spines and 16–19 rays in anal; 12–13 spines and 16–17 rays in dorsal.

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2a - Supraocular tentacle unbranched; pores of lateral line with black circle; no black dots on upper part of flank and cheek.

.....*S. renatorum*

2b - Supraocular tentacle branched; pores of lateral line with white circle; black dots present on cheek and/or upper part of flank.

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3a - Supraocular tentacle short, usually not overlapping 9th circum-orbital sensory pore; many tiny black dots on cheek not organised in rows or bands.

.....*S. burcucae*

3b - Supraocular tentacle long, usually overlapping 9th circum-orbital sensory pore; tiny black dots on cheek usually organised in rows, often with a broad diagonal band of tiny black dots from lower edge of eye downward and backwards.

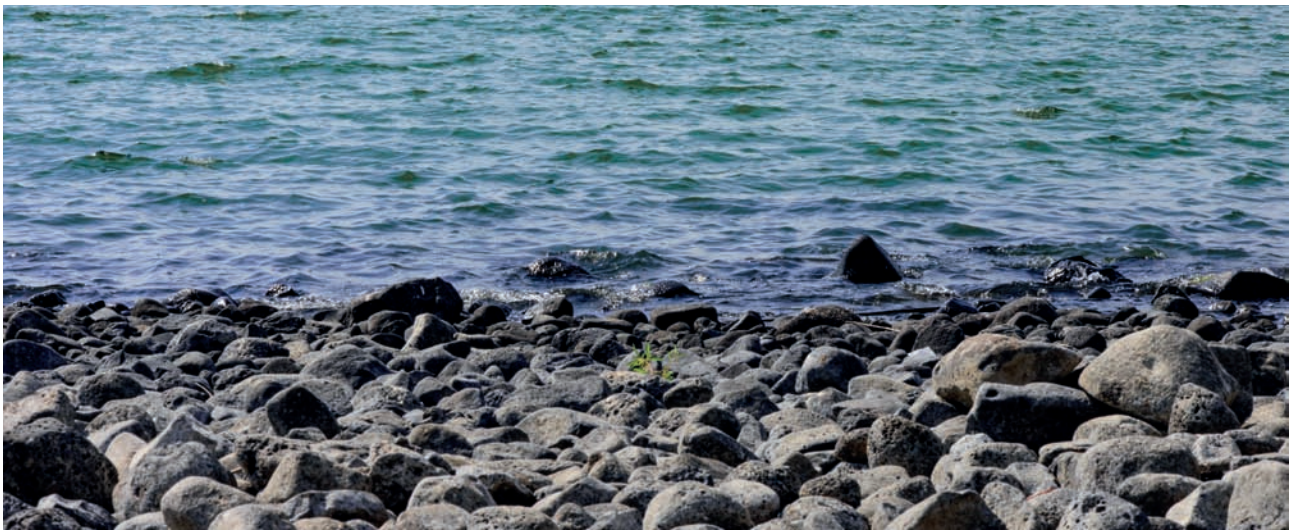
.....*S. fluviatilis*



Salariopsis burcucae; Nahr al Marq'ya, Syria; 69 mm SL.



Salariopsis burcucae; Lake Kinneret, Israel; nuptial male, ~50 mm SL.



Lake Tiberias in Israel is the largest habitat of *Salariopsis burcucae* and several other species.

Salariopsis burcucae

Common name. Eastern freshwater blenny.

Diagnosis. Distinguished from other species of *Salariopsis* in West Asia by: ● tiny black dots on the cheek not organised in rows or bands / ● supraocular tentacle branched, short, not reaching to, rarely overlapping the 9th circum-orbital sensory pore / ○ pores of lateral line with white circle / ○ black dots present on cheek and/or upper part of flank. Size up to 88 mm SL.

Distribution. Bay of Antalya (Türkiye) east to Jordan drainage (Israel), including Cyprus.

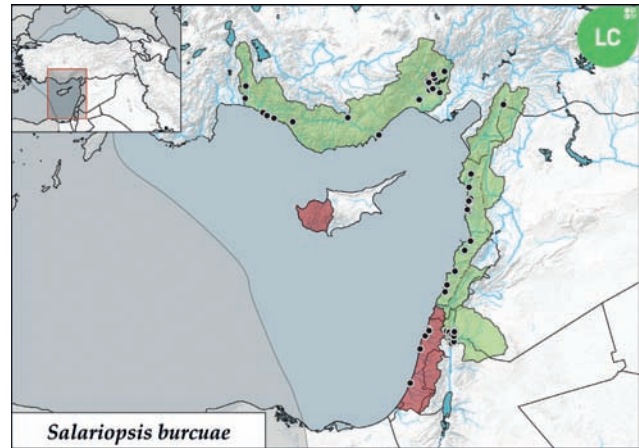
Habitat. Streams with moderate current and rocky bottom. Also in lakes, including reservoirs.

Biology. No data, but expected to be similar with *S. fluviatilis*.

Conservation status. LC.

Remarks. Superficially very similar to *S. fluviatilis* but well differentiated by molecular characteristics.

Further reading. Yoğurtçuoğlu et al. 2023 (description).



Salariopsis fluviatilis; Tahtalı drainage, Türkiye; 74 mm SL.



Salariopsis fluviatilis; Lago di Garda, Italy; nuptial male, ~70 mm SL.

Salariopsis fluviatilis

Common name. Freshwater blenny.

Diagnosis. Distinguished from other species of *Salariopsis* in West Asia by: ● tiny black dots on cheek usually organised in rows, often with a broad diagonal band of tiny black dots from lower edge of eye downward and backward / ● supraocular tentacle branched, long, usually overlapping 9th circum-orbital sensory pore / ○ pores of lateral line with white circle / ○ black dots present on cheek and/or upper part of flank. Size up to 130 mm SL.

Distribution. From Atlantic basin in Portugal east to western Anatolia. Also present on larger Mediterranean islands such as Corsica, Sardinia, Sicily, and Crete. Present in Garonne drainage (Atlantic basin in France), possibly due to invasion through Canal du Midi. Introduced to reservoirs in Sakarya and Kızılırmak drainage.

Habitat. Lakes and streams with moderate currents and rocky bottoms; in streams, deepest and fastest microhabitats are preferred, locally in coastal lagoons with low salinity.

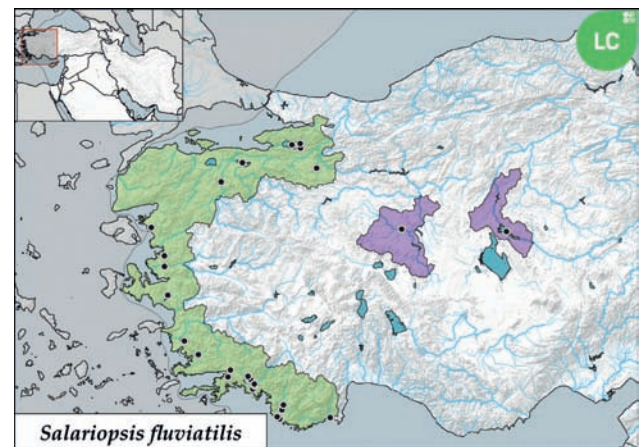
Biology. Territorial, lives on and under rocks. Lives up to 5 years. Spawns first time at end of first year. Spawns for up to 3 years, but most females die at end of the first spawning year. Spawns May–August in France, April–July in Spain and Italy, at temperatures above 18°C. Female lays up to 1200 eggs (usually 200–300) in a single layer under a large stone, producing several portions of eggs during a spawning season. Male clean, fan, and defend eggs until hatching. Several females may spawn with one male, who may guard eggs at different stages of development. Eggs hatch in about a week. Larvae are planktonic for about a month until about 15 mm and drift to and

remain in quiet pools or tributaries of rivers. They have a high tolerance for salt water, allowing them to migrate through marine waters. Feeds on insects, crustaceans, and small molluscs.

Conservation status. LC.

Remarks. The identity of extirpated population in Cyprus remains unclear and may have been *S. burcucae*, which is found on the adjacent mainland.

Further reading. Wickler 1957 (behaviour); Freeman et al. 1990 (habitat); Gandolfi et al. 1991 (biology); Ferrito & Tigano 1996 (threats); Perdices et al. 2000 (genetics); Doadrio 2001 (biology); Bath 2003 (biology); Kottelat 2004 (diversity); Vinyoles & de Sostoa 2007 (biology); Almada et al. 2009; Laporte et al. 2016a, b (dispersal through sea); Méndez et al. 2019; Wagner et al. 2021 (phylogeography); Yoğurtçuoğlu et al. 2023 (distribution).



Nahr Al Marqiyah in Syria is the habitat of *Salariopsis burcucae*, *Pseudophoxinus hasani* and *P. zeregi*.



Salariopsis renatorum; Ceyhan drainage, Türkiye; 44 mm SL.



Salariopsis renatorum; Ceyhan drainage, Türkiye; 69 mm SL.

Salariopsis renatorum

Common name. Ceyhan freshwater blenny.

Diagnosis. Distinguished from other species of *Salariopsis* in West Asia by: ● supraocular tentacle unbranched / ● pores of lateral line with black circle / ● no black dots on cheek and/or upper part of flank. Size up to 69 mm SL, likely to grow larger.

Distribution. Türkiye: Ceyhan and Arsuz drainages.

Habitat. Fast-flowing stretches of streams.

Biology. No data, but expected to be similar with *S. fluviatilis*.

Conservation status. LC; appears to be declining within its small range.

Further reading. Yoğurtçuoğlu et al. 2023 (description).

