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ANNOTATED CHECKLISTS OF FISHES

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Family Ellassomatidae Jordan 1877

pygmy sunfishes

By

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The Ellassomatidae is a small family of North American freshwater fishes endemic to the southeastern United States. Individuals rarely exceed 40 mm standard length and superficially resemble small individuals of the perciform family Centrarchidae. Basisphenoid, endopterygoid, and infraorbitals (except lachrymal) absent. Gill membranes broadly united across isthmus. Dentary and angular bones not penetrated by lateral line. Lateral line absent from body. Scales cycloid. Dorsal fin with 3–5 spines and 8–13 soft rays, anal fin with 3 spines and 4–7 soft rays; caudal fin rounded, usually with 12 branched rays. Inhabit quiet, weedy, often acidic waters, and locomotion is accomplished primarily by movement of the pectoral fins (as in gasterosteiform fishes). Feed exclusively on microinvertebrates. Six species are presently recognized as valid, with at least one additional undescribed species.

The family name was proposed first as a subfamily (Elassominae) without inclusion in any family group (Jordan 1877:50 [ref. 2374]). Certain characteristics suggest neotenic centrarchid development, and largely on this basis the group has often been considered a subfamily of the Centrarchidae (Nelson 1984 [ref. 13596]). Some workers have regarded the ellassomatids as a separate family, particularly since 1962, and this is now generally accepted. Increasing evidence has shown that the pygmy sunfishes are not neotenic centrarchids, and Johnson (1984 [ref. 9681], 1993 [ref. 27222]) has suggested that they may not be perciform fishes at all. Johnson and Patterson (1993 [ref. 27223]) found that ellassomatids share some derived features with the mugiliforms, atheriniformes, gasterosteiforms, and synbranchiforms. Johnson and Springer (1997 [ref. 27225]) provided compelling evidence to suggest that their closest relationships lie with the gasterosteiform fishes, but confirmatory data await formal publication. Nelson (1994 [ref. 26204]) maintained a more conservative view, placing the family in its own suborder (Elassomatoidei) within the Perciformes.

Genus *Elassoma* Jordan 1877

Elassoma Jordan 1877:50 [ref. 2374]. Type species *Elassoma zonata* Jordan 1877. Type by original designation (also monotypic).

***Elassoma alabamae* Mayden 1993**

Elassoma alabamae Mayden 1993:2, Figs. 1a, 1b [ref. 21162] (Moss Spring run into Beaverdam creek, 1.4 miles north of Greenbriar, Tennessee R. drainage, Limestone Co., Alabama, U.S.A.). Holotype: UAIC 10275.01.

DISTRIBUTION: Endemic to Moss Spring and (historically) adjacent springs in middle Tennessee River drainage, Alabama.

***Elassoma boehlkei* Rohde & Arndt 1987**

Elassoma boehlkei Rohde & Arndt 1987:66, Figs. 1a, 1b [ref. 13524] (Juniper Creek at State rte. 1340 bridge, Waccamaw R. drainage, Brunswick Co., North Carolina, U.S.A.). Holotype: ANSP 158481.

DISTRIBUTION: Waccamaw and Santee river drainages, North Carolina and South Carolina.

***Elassoma evergladei* Jordan 1884**

Elassoma evergladei Jordan 1884:323 [ref. 10450] (Lake Jessup, near Sanford, Seminole Co. and sidewater of Indian R., near Titusville, Brevard Co., Florida, U.S.A.). Syntypes: USNM 25326 (8) Lake Jessup, USNM 25334 (originally 3, now 1) Indian R.

DISTRIBUTION: Cape Fear River drainage, North Carolina, south throughout most of peninsular Florida, and west to lower Mobile Bay basin, Alabama.

***Elassoma okatie* Rohde & Arndt 1987**

Elassoma okatie Rohde & Arndt 1987:77, Figs. 3a, 3b [ref. 13524] (roadside ditch on U.S. hwy. 17, 3.5 km south of Switzerland, Jasper Co., South Carolina, U.S.A.). Holotype: ANSP 158483.

DISTRIBUTION: Edisto and Savannah river drainages, South Carolina.

***Elassoma okefenokee* Böhlke 1956**

Elassoma okefenokee Böhlke 1956:2, Fig. 1a [ref. 12179] (Kettle Creek, trib. of Satilla R., near Waycross, Ware Co., Georgia, U.S.A.). Holotype: ANSP 74640.

Elassoma evergladei orlandicum Lönnberg 1894:123 [ref. 23437] (Ferncreek [=Fern Creek] and small lakes around Orlando, Orange Co., Tohopekaliga and other waters around Kissimmee, Osceola Co., and Arcadia, De Soto Co., Florida, U.S.A.). Syntypes: NRM 9170 (3), 14105–106 (1, 5); ZMUU 344a, j–s (11), 344b–i (8).

DISTRIBUTION: Lower Altamaha River drainage, Georgia, south to central part of peninsular Florida, and west to Choctawhatchee River drainage, Florida.

REMARKS: *Elassoma okefenokee* comprises two species (one undescribed), distinguished by a consistent difference in number of preopercular pores (4–4 in western populations, 3–3 in true *E. okefenokee* populations to east). The undescribed species ranges from the Choctawhatchee River drainage east to the Waccasassa River drainage, Florida. *Elassoma okefenokee* (*sensu stricto*) occupies the rest of the range, with both species occurring in the Suwannee River drainage, Florida, where they apparently are distributed allopatrically.

Although *Elassoma evergladei orlandicum* is a senior synonym of *E. okefenokee* (Gilbert 1998:254–255 [ref. 23395]), it has not been used in the published literature as a valid name after 1899 and *E. okefenokee* has been used as a valid name in at least 25 publications by 10 different authors in the past 50 years. Prevailing usage of the junior name is allowed because conditions of Articles 23.9.1.1 and 23.9.1.2 of the International Code of Zoological Nomenclature are met, and *E. okefenokee* qualifies as a nomen protectum and *E. evergladei orlandicum* as a nomen oblitum. Published works citing the name *Elassoma okefenokee* as valid are: Shortt 1956 [ref. 27277], Bailey et al. 1960 [ref. 27285], Branson and Moore 1962 [ref. 27282], Bailey et al. 1970 [ref. 27286], Dahlberg and Scott 1971 [ref. 27274], Avise and Smith 1977 [ref. 27283], Swift et al. 1977 [ref. 27280], Yerger 1977 [ref. 27281], Böhlke and Rohde 1980 [ref. 27272], Robins et al. 1980 [ref. 7111], Walsh and Burr 1984 [ref. 27284], Laerm and Freeman 1986 [ref. 27275], Starnes and Etnier 1986 [ref. 27279], Swift et al. 1986 [ref. 27278], Rohde and Arndt 1987 [ref. 13524], Page and Burr 1991 [ref. 18983], Robins et al. 1991 [ref. 14237], Boschung 1992 [ref. 23239], Burr and Mayden 1992 [ref. 27273], Mayden et al. 1992 [ref. 27276], Bohlen and Nolte 1993 [ref. 27271], Mayden 1993 [ref. 21162], Etnier and Starnes 1994 [ref. 22809], Eschmeyer 1998 [ref. 23416], and Gilbert 1998 [ref. 23395].

All syntypes of *E. evergladei orlandicum* are *E. okefenokee* with the exception of one lot of eight specimens (ZMUU 344b–i), which are *E. evergladei*. All extant types of *E. evergladei orlandicum* are from Fern Creek.

***Elassoma zonatum* Jordan 1877**

Elassoma zonata Jordan 1877:50, Pl. 45 (fig. 73) [ref. 2374] (Little Red R., Judsonia, White Co., Arkansas, U.S.A.). Lectotype: USNM 20496.

DISTRIBUTION: Lower Roanoke River drainage, North Carolina; south to middle parts of St. Johns River, Florida; west to Brazos River drainage, Texas; and north to lower Wabash River drainage, Indiana and Illinois.

REMARKS: USNM 20496 is herein designated the lectotype in order to fix the type locality as Little Red River. The other type locality, prior to fixation as Little Red River by lectotype designation, was the Brazos River, Texas.

Summary Lists

Genus-Group Names of Family Ellassomatidae

Elassoma Jordan 1877 = *Elassoma* Jordan 1877

Incertae Sedis Genus-Group Names

None

Unavailable Genus-Group Names

None

Species-Group Names of Family Ellassomatidae

alabamae, *Elassoma* Mayden 1993 = *Elassoma alabamae* Mayden 1993

boehlkei, *Elassoma* Rohde & Arndt 1987 = *Elassoma boehlkei* Rohde & Arndt 1987

evergladei, *Elassoma* Jordan 1884 = *Elassoma evergladei* Jordan 1884

okatie, *Elassoma* Rohde & Arndt 1987 = *Elassoma okatie* Rohde & Arndt 1987

okefenokee, *Elassoma* Böhlke 1956 = *Elassoma okefenokee* Böhlke 1956

orlandicum, *Elassoma evergladei* Lönnberg 1894 = *Elassoma okefenokee* Böhlke 1956

zonata, *Elassoma* Jordan 1877 = *Elassoma zonatum* Jordan 1877

Incertae Sedis Species-Group Names

None

Unavailable Species-Group Names

None

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