

OPINION 69

THE TYPE SPECIES OF *SPARUS* LINNÆUS, 1758

SUMMARY.—Fleming, 1828, 211, does not designate the type of *Sparus*.

STATEMENT OF CASE.—Chancellor David Starr Jordan has submitted the following case for opinion:

THE TYPE OF *SPARUS* L.

The genus *Sparus* L. was subdivided by Cuvier (1817, vol. 2, pp. 271-274, Règne Animal), who failed to retain the name for any of its parts.

Fleming (1828, pp. 211-212, History of British Animals) recognized three genera among the Linnæan species—*Sparus*, *Pagrus* Cuvier (*Sparus pagrus* L.) and *Dentex* Cuvier (*Sparus dentex* L.). Under *Sparus* he says:

“Gen. LXVII. *SPARUS*, GILTHEAD. Four or six teeth in each jaw, in one row; the rest of the jaw paved with large round teeth, with blunt summits.”

One species is mentioned, *Sparus aurata* L., which is the common “Gilt-head,” the type of *Chrysophrys* Cuvier, 1817, and of *Aurata* Risso, 1826.

Does this constitute a restriction of *Sparus* to *S. aurata*? Common usage so regards it. Later authors have proposed to use the name for other Linnæan species of *Sparus*.

The other species, formerly referred to *Sparus*, are never called “Gilt-head.”

DISCUSSION.—The case of *Sparus* involves the same principles as the case of *Pleuronectes* (see Opinion 68).

The details of the premises presented by Doctor Jordan are as follows:

Linnæus (1758a, pp. 277-282, Systema Naturæ) included in the genus *Sparus* 22 species, as follows: 1, *aurata*; 2, *annularis*; 3, *sargus*; 4, *melanurus*; 5, *smaris*; 6, *mæna*; 7, *saxatilis*; 8, *orphus*; 9, *hurta*; 10, *erythrinus*; 11, *pagrus*; 12, *boops*; 13, *cantharus*; 14, *chromis*; 15, *salpa*; 16, *synagris*; 17, *dentex*; 18, *spinus*; 19, *virginicus*; 20, *mormyrus*; 21, *capistratus*; 22, *galilæus*.

Cuvier (1817, vol. 2, pp. 268-272, Règne Animal) distributed original Linnæan species among the following systematic units:

PERCOIDES

g. *Smaris* Cuvier, 1817 [not *Smaris* Latreille, 1796, arach.], including—
Sparus mæna L.

Sparus smarís L. [type by absolute tautonymy], together with certain other species mentioned in footnote.

g. *Boops* Cuvier, 1817, including—

Sparus salpa L.

Sparus melanurus L.

Sparus boops L. [type by absolute tautonymy].

g. *Sparus* Cuvier, 1817. [Cf. *Sparus* Linn., 1758.] ("Que je réduits aux espèces de l'ancien genre de ce nom, dont les mâchoires peu extensibles sont garnies, sur les côtes, de molaires rondes, semblables à des pavés. Ils vivent généralement de *fucus*. Je les subdivise comme il suit") :

[subg.] *Sargus* Cuvier, 1817 [not *Sargus* Fabr., 1798, dipteron], containing—

La Sargue ordinaire (*Sp[arus] sargus* L.) [type by absolute tautonymy].

[subg.] Les Daurades [Latin name not given], containing—

La Daurade ordinaire (*Sp[arus] aurata* L.), together with several other species mentioned in footnote.

[subg.] *Pagrus* Cuvier, 1817, containing—

Le Pagre ordinaire (*Sp[arus] argenteus* Schn.) [= *pagrus* Linn., teste Jordan and Evermann].

Le Pagel (*Sp[arus] erythrinus* L.), and 3 species in footnote.

g. *Dentex* Cuvier, 1817, containing—

Le Denté ordinaire (*Sp[arus] dentex* L.) [type by absolute tautonymy], and several species mentioned in footnote.

g. *Cantharus* Cuvier, 1817 [not *Cantharus* Bolt, 1798, mollusk, not *Cantharus* Montf., 1808, mollusk], containing—

Le Canthère ordinaire (*Sp[arus] cantharus* L.) [type by absolute tautonymy], and several species in footnote.

Fleming (1828, pp. 211-212, History of British Animals) reports and describes the following original Linnæan species of the genus *Sparus* for Great Britain:

g. 47. *Sparus* Gilthead. [1 species reported.]

136, *S. aurata*.

g. 48. *Pagrus* Braize. [2 species reported.]

137, *P. vulgaris*. Common Braize. Syn. *Sparus pagrus* Linn.

g. 49. *Dentex*. [1 species reported.]

139, *D. vulgaris*. Syn. *Sparus dentex* Linn.

The author does not state in connection with any one of these three genera what species he accepts as type species; but *Sparus pagrus* had become the type of *Pagrus* in 1817, by absolute tautonymy (*argenteus*=*pagrus*, see Jordan and Evermann, 1898). *Sparus dentex* had become the type of *Dentex* in 1817, by absolute tautonymy. *Sparus aurata* does not appear, from the premises presented, to be the type of *Sparus* by absolute tautonymy, but Cuvier, 1817, had placed *Sparus aurata* in the genus *Sparus*, subgenus Les Daurades (no Latin name used), to which subgenus Cuvier later (1829) gives the name *Chrysophris* (= *Chrysophris*, 1830), of which it was the first species mentioned. Prior to this date (1829), however, Fleming (1822, Philosophy of Zoology) had adopted three of Cuvier's subgenera of *Sparus*.

and had retained for Les Daurades the subgeneric name *Sparus*, as shown in the following quotation:

p. 392, 92. *Sparus*. Teeth on the sides round, with flat summits. Jaws nearly fixed. 1. *Sargus* (*S. sargus*). 2. *Sparus* (*S. aurata*). 3. *Pagrus* (*S. pagrus*).

Accordingly, the premises presented by Doctor Jordan appear to be incomplete, for Fleming's action of 1828 in adopting *Sparus* for *Sparus aurata* is virtually simply an adoption of his action of 1822.

The same question and the same possibilities of interpretation now arise in respect to Fleming's action of 1822 in regard to *Sparus*, that arose in connection with his action of 1822 in regard to *Pleuronectes* (see Opinion No. 68, The Type of *Pleuronectes* L.).

While the evidence in the foregoing seems to point to the conclusion that *aurata* should be taken as type species of *Sparus* on basis of Fleming 1822, p. 392, it seems wise, in view of the possibility of a difference of opinion in regard to the interpretation, to follow the case further, in order to see how this view would coincide with the later history of the generic name.

Without entering upon a detailed discussion of this case, which involves many references in addition to those cited by Doctor Jordan, attention is invited to the facts that—

(a) Fleming's action of 1822 in retaining *Sparus* for the species *Sparus aurata* is followed by Fleming, 1828, and Fleming, 1842¹; and

(b) Cuvier's action of 1829 in placing the species *Sparus aurata* in the genus *Chrysophris*, 1829 (*Chrysophrys*, 1830) is followed by Swainson (1829), Cuvier & Valenciennes (1830), Burmeister (1837) who gives *Sparus* Linn. as synonym, Günther (1859), Ludwig's Leunis (1883), Claus (1885), Knauer (1887), R. Blanchard (1890), and Railliet (1895), while Apstein (1915a), definitely designates *Sparus aurata* as type of *Chrysophrys*.

From the two quotations given in the foregoing—1822 and 1828—it will be seen that in 1828 Fleming is simply reporting the presence of *Sparus aurata* in British waters, and that, "rigidly construed," he does not here designate a type species for the genus *Sparus*, but in 1822 he distinctly recognizes a typical subgenus (*Sparus* s. str.) to include Cuvier's 1817 "Les Daurades." Cuvier's 1829 genus *Chrysophris* (1830 *Chrysophrys*), therefore, includes Fleming's 1822 typical subgenus *Sparus*.

In answering the question presented by Doctor Jordan, the Commission is therefore of the opinion that Fleming, 1828, p. 211, did

¹ Also Jordan (1917a, 13, The genera of fishes).

not designate the type for *Sparus aurata* for British waters, and that in using the generic name *Sparus* for the species *Sparus aurata*, he simply acted nomenclaturally in accordance with his action of 1822.

Opinion written by Stiles.

Opinion concurred in by 14 Commissioners: Allen, Apstein, Bather, Blanchard, Handlirsch, Hartert, Horváth, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from by no Commissioner.

Not voting, 4 Commissioners: Dautzenberg, Kolbe, Roule, Simon.

The foregoing Opinion was submitted to all Commissioners for vote and to more than 350 zoologists, zoological laboratories, colleges, and scientific institutions for comment. No adverse criticism has been received by the Secretary, but the following comments have been sent to him:

Commissioner Allen: Again it seems to me that Fleming may be correctly assumed to have fixed the type of *Sparus* in 1822 (by monotypy) as *Sparus aurata* Linn. Fleming's *Sparus* (1822 and 1828) = Les Daurades Cuvier (1817), to which Fleming appears to have been the first to assign a name, selecting *Sparus* for it.

While Fleming did not formally, or in the strict sense of Article 30 of the International Code, designate a type for either *Pleuronectes* or *Sparus*, I should not in the least hesitate, were I forced to give a decision in the case, to decide that, for all practical purposes, Fleming did indicate *Pl. platessa* L. as the type of *Pleuronectes*, and *Sp. aurata* L. as the type of *Sparus*; at least I should hold that such a decision was warranted by usage and in harmony with many precedents.

Commissioners Bather, Hartert, D. S. Jordan, and Stejneger: Same remarks as under Opinion 68.

Commissioner Hoyle: As regards *Sparus*, I am not clear about the action of Cuvier, 1817. If an author divides the genus and does not retain the original name for one of the parts, does not that render his action null and void? Or can we pick out one of his parts, apply the old name to that and neglect his new one?

Favorable opinions have been received from: P. P. Calvert, Barton W. Evermann, W. C. Kendall, Lewis Radcliffe, Hugh M. Smith, Oldfield Thomas, A. A. Tyler, and H. L. Viereck.

Miss Mary J. Rathbun: Also that *aurata* became the type of *Sparus* in 1822 by Fleming, and, therefore, he did not designate the type of that genus in 1828.

Doctor Pappenheim: See remarks under Opinion 68.