

*HETEROTIS* EHRENBERG, 1829, AND *CLUPISUDIS* SWAINSON, 1839  
(PISCES): PROPOSAL TO PLACE ON THE OFFICIAL LIST OF  
GENERIC NAMES IN ZOOLOGY. Z.N.(S.) 1807

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The object of the present application is to request the Commission to confirm the validity of the generic names *Heterotis* Ehrenberg in Rüppell, 1829 and *Clupisudis* Swainson, 1839.

*History of the Case:*

2. In 1817 Cuvier (*Règne Animal* (ed. 1) 2 : 180) defined a new genus *Sudis* without including any nominal species in it. The same generic name had already been introduced validly by Rafinesque in 1810 (*Caratteri di alcuni nuovi generi e nuove specie di animali e piante della Sicilia*: 60) for an entirely different fish. During an expedition to Egypt made during the years 1820-1825, C. G. Ehrenberg recorded a fish from the Nile which he called *Heterotis niloticus* and of which he had made a plate dated 1827\*.

3. However neither the name nor the plate were published at this date and Ehrenberg was content to leave his discovery to ichthyologists of the period: Cuvier, Valenciennes and Rüppell. [It was not until 1836 that he himself used the name *Heterotis niloticus* in *Abh. phy-Kl. K. Ak. Wiss. Berlin*, 1834 : 532.] Actually Cuvier in 1829 (*Règne Animal*, (ed. 2), 2 : 180) recorded the species under the name *Sudis niloticus* Ehrenberg at the same time as a species from Senegal and one from Brazil which he named *Sudis adansonii* and *Sudis gigas* respectively. Since no type-species was designated at the time, these three nominal taxa were equally acceptable for a subsequent designation of the type-species of *Sudis* Cuvier, 1817 (non Rafinesque, 1810). All authors have followed one another in recognizing the validity of the specific name *niloticus* published for the first time by Cuvier in 1829 and attributed explicitly by him to Ehrenberg.

4. The same year but a little later, Rüppell (1829, *Beschreibung und Abbildung mehrerer neuer Fische im Nil entdeckt*: 10) gave a detailed description of the species which he named *Sudis niloticus*. In a footnote the same author added: "Da übrigens gerade Herr Valenciennes meine hier zu beschreibende *Sudis*art von dem *Heterotis niloticus* des Herrn Dr. Ehrenberg verschieden glaubt, welches durchaus irrig ist." This citation of an available specific name in conjunction with a new generic group name constituted an indication in the sense of Article 16 of the International Code of Zoological Nomenclature and renders available the generic name *Heterotis* Ehrenberg in Rüppell, 1829. *Helicobranchus*,

\* This plate on which is printed "ad Nat. del C. G. Ehrenberg" and "F. W. Linger jun. Sculp. Berlin 1827" was not actually published until 1899 in a posthumous work of Hemprich and Ehrenberg entitled: *Symbolae physicae*. . . . The legend of the plate, drawn up by Hilgendorf, bears the title: *Heterotis nilotica* H. et E. *Heterotis niloticus* Ehrenberg". It represents, in left lateral view, an individual measuring 33 cm. in standard length and 37 cm. in total length. Small figures indicate the number of rays observed on the fins of the form: P.11; V.6; D.34; A.37; C.14.

proposed by Hyrtl in 1854 (*Denkschr. Ak. Wien.* 8 : 86) as a more correct name for *Heterotis* is an unnecessary new name and falls as a synonym of *Heterotis* Ehr. in Rüppell.

5. For the genus *Sudis* Cuvier, 1817, non *Sudis* Rafinesque 1810, Swainson in 1839 (*Natural History of Fishes* . . . 2 : 286) proposed the replacement name *Chupisudis*. In virtue of Article 67 i of the International Code of Zoological Nomenclature this generic name must have applied to it the same type-species as that of the replaced name, *Sudis* Cuvier, 1817. This last has been designated by Jordan (1917, *The genera of Fishes* 1 : 99), who wrote: "*Sudis* Cuvier, 1817, type (not named) *Sudis gigas* Cuvier." The generic names, *Arapaima* J. Müller, 1843 (*Beiträge zur Kenntniss der natürlichen Familien der Fische* : 326) and *Vastres* Valenciennes, 1846 (*Hist. naturelle des Poissons* 19 : 433) also proposed as replacement names for *Sudis* Cuvier, 1817, are junior synonyms of *Chupisudis* Swainson, 1839.

*Gender and termination of the root to be employed in the formation of derivatives:*

6. The word *Heterotis* alludes to the suprabranchial organ. Valenciennes, 1846 (*Hist. Poiss.* 19 : 465) writes: "M. Ehrenberg le croyant une annexe de l'oreille, imagina . . . de désigner son poisson par la dénomination *Heterotis*." This name has been formed from two greek words ἕτερον and οὐς, ὠτός, then latinized into *-is*. Now latin words ending in *-is*, of the third declension, are masculine or feminine and are declined like *lapis*, *lapidis* or like *collis*, *collis*. In choosing *niloticus* as the name of the species, it is clear that Ehrenberg intended to give to *Heterotis* the masculine gender and that Hilgendorf (in Hemprich and Ehrenberg, 1899) was in error in writing "*Heterotis nilotica* H. & E." The same author in the legend to plate IX, writes in the genitive *Heterotis niloticae* while on the plate itself one finds *Heterotidis niloticae*. The correct form of the genitive being *Heterotis*, the name of the family-group corresponding should be spelled HETEROTIDAE; similarly the family-group name derived from *Chupisudis* should be spelled CLUPISUDIDAE. These two names were published in this form simultaneously by Jordan (1923, *A classification of Fishes*: 123).

*Type-species and synonymies*

7. *Heterotis niloticus* being the single nominal species originally included in the genus *Heterotis*, it follows that *Sudis niloticus* (Ehrenberg) Cuvier, 1829 is the type-species by monotypy. The type of the species cannot now be found in the Berlin Museum. Dr. C. Karrer writes in a letter of 6.4.1967: "In unserem Eingangskatalog ist unter der Nr. 3935 ein von Hemprich und Ehrenberg gesammeltes Exemplar als Trockenpräparat aufgeführt, trägt oben hier kein Typuszeichen . . . Unter den jetzt noch vorhandenen Trockenpräparaten befindet es sich aber leider nicht mehr." Consequently of the type specimen (or syntype specimens), on which the nominal species *Heterotis niloticus* was founded, there remains only the plate engraved in 1827, with which to identify the taxon. By the application of Article 74b of the International Code we designate this figure to represent the lectotype of the species which must be validly designated by the binomen *Heterotis niloticus* (Ehrenberg in Cuvier), 1829.

8. *Sudis adansonii* Cuvier, 1829 and *Heterotis ehrenbergii* Valenciennes, 1846 are subjective synonyms. Actually the type of *Sudis andansonii* is a specimen from Senegal collected by Adanson and deposited in the Muséum national d'Histoire naturelle, Paris, as No. 3608, while the types of *Heterotis*

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## SEPARATE

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This paper contains an evaluation relative to a question of zoological nomenclature