

PROPOSED SUPPRESSION OF *RHINIODON* SMITH, 1828 (PISCES)
IN FAVOUR OF *RHINCODON* SMITH, 1829 AS THE GENERIC NAME
OF THE WHALE SHARK^{1,2} Z.N.(S.) 2090

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We request the International Commission to reject the generic name *Rhiniodon* Smith, 1828, as used in the binomen *Rhiniodon typus* Smith in favour of *Rhincodon* Smith, 1829, applied in the binomen *Rhincodon typus* Smith.

1. The whale shark, largest of all fish-like vertebrates, is widely and popularly known. It is the subject of innumerable popular accounts in magazines and newspapers and is accorded a place in encyclopaedias, most general natural histories and many zoological texts. It clearly belongs to all science and a wide lay audience; it is not a species dealt with only by ichthyological systematists.

2. M. J. Penrith (*Copeia*, 1972 : 362) discussed the nomenclatural history of the whale shark, calling attention to an overlooked newspaper publication by Andrew Smith (1828) that predates by one year Smith's scientific description of *Rhincodon typus* (1829). We accept the evidence presented by Penrith with regard to dates of publication. Penrith noted that there have been four variant spellings for the whale shark genus: *Rhiniodon*, *Rhincodon*, *Rhinodon* and *Rhineodon*. Three other spellings were overlooked: *Rhinchodon* Smith (1829, used only in the index, p.534, presumably is a typographical error but is of interest in that the "c" is retained; this spelling tends to discredit the view that *Rhincodon* was a slip for *Rhiniodon* or *Rhineodon*), *Rineodon* Müller and Henle, 1838 (*Charlesworth's Magazine of Natural History*) and *Rhinecodon* proposed by L. Agassiz (1846) in his *Nomenclator Zoologicus*. The sequence of these names is *Rhiniodon*, *Rhincodon*, *Rhinchodon*, *Rhineodon*, *Rineodon*, *Rhinodon* and *Rhinecodon*. *Rhincodon* and *Rhinchodon* are multiple original spellings of the same name under Art. 32b. Acting as first revisers, we hereby adopt the former as the correct original spelling.

3. *Rhinodon* originates with Müller and Henle (1841) who, by using *Rhinodon typicus*, modified both the generic and specific names. Smith (1849) followed Müller and Henle in this spelling, a point which considerably weakens Penrith's view (1972) that *Rhincodon* "could be possibly construed as a correction of a typographical error in the original, if the name had not later (Smith, 1845) been given as *Rhinodon typicus*". Penrith incorrectly attributed *Rhinodon* to Smith instead of Müller and Henle. Plate 26, and its associated text, of Smith's work (1849) were published separately in 1845 (see Waterhouse, 1880). The account of *Rhinodon* by Müller and Henle contains two footnote references to Smith. The first concerns the condition of the spleen but the second states

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"Die Beschreibung ist theils nach Ansicht dieses Exemplars, theils nach der Abbildung und den Mittheilungen des Dr. Smith entworfen". We see no basis in this footnote to conclude that Smith was responsible for the spelling *Rhinodon*. Also it should be noted that Müller and Henle in 1837, 1838 and 1841 spelled this genus *Rhineodon*, *Rineodon* and *Rhinodon* respectively so that it is difficult to assign any particular significance to their use of *Rhinodon* in their major paper.

4. Another point overlooked by Penrith is that *Rhincodon* is the type-genus of the monotypic family RHINCODONTIDAE (most ichthyologists accept this family although a few prefer to include the whale shark in the ORECTOLOBIDAE). His proposal that the earlier spelling *Rhiniodon* be accepted would mean emendation of the family name RHINCODONTIDAE to RHINIODONTIDAE unless *Rhiniodon* and *Rhincodon* were considered separate but synonymous genera, in which case by Penrith's proposal we would have *Rhiniodon* as the sole genus of the family RHINCODONTIDAE, assuming that the name in current use is accepted (see below). (The family-group name RHINIODONTIDAE was never used until Compagno (1973 : 28) inserted it in his classification of sharks and erroneously attributed the name to Müller and Henle.) This would depend, under Article 33 of the Code, on whether the various spellings were interpreted as "unjustified emendations" in which case *Rhincodon*, *Rhinodon*, etc. would each have nomenclatural status with their own dates and authors and each would be a junior objective synonym of *Rhiniodon* Smith or as "incorrect subsequent spellings" in which case they have no nomenclatural status. Since the descriptions by Smith are essentially the same and based on the same fish, we may regard the differences in generic spelling as merely that. The 1829 description is more complete, is published in a scientific journal and includes a Latin translation of the generic and specific descriptions and an account of the purchase and disposition (to the Paris Museum) of the type material (the skin). Despite the difference in dates of publication, the manuscript of the 1829 publication could have been prepared first. It is thus impossible to determine Smith's original intent with regard to spelling. Assuming that *Rhincodon* was the original intent, then *Rhiniodon* (even though published earlier), *Rineodon* and *Rhinodon* are, in our view, incorrect subsequent spellings and *Rhinecodon* is an unjustified emendation.

5. Without reviewing exhaustively the enormous literature on the whale shark, it is clear that *Rhincodon* has been widely used during the last 25 years and that both *Rhincodon* and *Rhineodon* were used in the earlier part of this century. Those who used *Rhineodon* regarded it as a corrected spelling for *Rhincodon*, which was thus considered a misprint. *Rhinodon* was widely used by pre-Jordan workers of the 1800's, in fact, by virtually all authors from Müller and Henle, 1841, through Günther's various writings in the late 19th century. Agassiz, highly regarded in matters of orthography, had emended the name to *Rhinecodon*, a name never used except for indexing in nomenclators. Greek grammars would seem to sanction either *Rhinodon* or *Rhineodon*. There are two separate suggestions with regard to the origin (never stated) of the first half of the name. In any event, no clear case can be made to regard either Smith's 1828 or 1829 names to be merely a typographical error. It seems futile at this point to argue further the correct orthography of *Rhincodon*.

Rhiniodon appears never to have been used apart from the original account except for a cross reference "*Rhiniodon* see *Rhincodon*" in Volume IV of Neave's *Nomenclator Zoologicus*. Penrith included no other reference to *Rhiniodon*.

6. Inasmuch as *Rhineodon*, *Rineodon*, *Rhinodon* and *Rhinecodon* are all subsequent emendations of the two names in question, they do not concern us further except with regard to the spelling of the family-group name.

7. The family-group name RHINODONTES, was first applied by Müller and Henle (1841) and the same name was used by Duméril (1865). The first latinized family-group name was RHINEODONTIANA Gray (1851). Richardson (1856) used RHINODONTIDAE but his use of this latinized form of RHINODONTES validates Müller and Henle's earlier name and the family-group name RHINODONTIDAE would therefore date from 1841. Bleeker (1859) used RHINODONTOIDEI and correctly gave the group name synonymy. Gill (1862) used RHINODONTOIDAE which he attributed to Owen, the basis of which is unclear to us since Owen (1846) according to Gill (1862 : 382) did not adopt this family. The matter is of no consequence since, as already noted, RHINODONTIDAE officially dates from 1841. Gill (1865) used RHINODONTIDAE, an action also taken by Günther (1870). Gudger (1915 : 358) is incorrect in stating that Gill (1865) used the family RHINEODONTIDAE. RHINCODONTIDAE apparently was first used by Garman (1913) and is thus the third oldest family-group name for *Rhincodon*. However, this name has attracted increased usage and has enjoyed virtually universal acceptance for the past 30 years. To upset this widely used family name at this time would, in our view, be a disservice to biology. If *Rhinodon* is considered, as we interpret it, to be an incorrect subsequent spelling it, as noted in paragraph 4 above, would have no status and the family-group name would be RHINCODONTIDAE. But if *Rhinodon* were considered an unjustified emendation then RHINODONTIDAE has clear priority by 72 years, as the family-group name. Such an interpretation would result in a separate spelling of the genus and the stem of the family-group name, a most undesired circumstance, and in replacement of the accepted family-group name RHINCODONTIDAE. The same arguments apply with the same results to *Rhineodon* and RHINEODONTIDAE. Sabrosky (1972) has proposed that a paragraph be added to The Code indicating that a family name based on an unjustified emendation of a generic name is to be corrected.

8. The applicants therefore request the Commission:

- (1) to use its plenary powers to suppress for the purposes of the Law of Priority but not for the Law of Homonymy, the generic name *Rhiniodon* Smith, 1828;
- (2) to place on the Official List of Generic Names in Zoology: *Rhincodon* Smith, 1829 (gender: masculine), type-species under Article 68(b), *Rhiniodon typus* Smith, 1829;
- (3) to place the specific name *typus* Smith, 1828, as published in the binomen *Rhiniodon typus* (specific name of type-species of *Rhincodon* Smith, 1829), on the Official List of Specific Names in Zoology;
- (4) to place the family-group name RHINCODONTIDAE (type-genus *Rhincodon* Smith, 1829) on the Official List of Family-group Names in Zoology;

- (5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology: *Rhiniodon* Smith, 1828, rejected under (1) above;
- (6) to declare the following generic names to be incorrect subsequent spellings of *Rhincodon* Smith, 1829 and to place them on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Rhineodon* Müller & Henle, 1837
 - (b) *Rineodon* Müller & Henle, 1838
 - (c) *Rhinodon* Müller & Henle, 1841
 - (d) *Rhinecodon* L. Agassiz, 1846
- (7) to place the generic name *Rhynchodon* Smith, 1829 (rejected by first reviser action in paragraph 2 above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

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