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THE NOMENCLATURE OF THE ORANG UTAN

by

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Changes in the nomenclature of the Orang Utan recently proposed by Röhrer-Ertl are shown to be unnecessary. The generic name *Pongo* Van Wurm, 1784, for the genus, *P.s. satyrus* Linnaeus, 1758, for the Sumatran subspecies, and *P.s. borneensis* Van Wurm, 1784, for the Bornean subspecies, as used by Röhrer-Ertl all are invalid, and should be replaced by the correct traditional names, *Pongo* Lacépède, 1799, for the genus, *P.p. pygmaeus* (Linnaeus, 1760) for the Bornean subspecies, and *P.p. abelii* Lesson, 1827, for the Sumatran subspecies.

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A series of recent publications by Röhrer-Ertl (1982; 1983; 1984) has added very considerably to our knowledge of the taxonomy of the Orang Utan. The studies have shown that there are clear-cut differences in cranial characters between Bornean and Sumatran forms of the Orang Utan, such that it should be possible to identify each subspecies without error.

In his earliest paper on the subject, Röhrer-Ertl (1982) employed the conventional nomenclature for the species and its subspecies: *Pongo pygmaeus pygmaeus* Linnaeus, 1760 for the Bornean subspecies, and *Pongo pygmaeus abelii* Lesson, 1827 for the Sumatran. In the following year however (Röhrer-Ertl, 1983) he proposed to alter the nomenclature to *Pongo satyrus* Linnaeus, 1758; in his 1984 monograph he further specified that the Sumatran

subspecies should be called *Pongo satyrus satyrus* Linnaeus, 1758 and the Bornean *Pongo satyrus borneensis* van Wurmb, 1784; moreover the generic name *Pongo* was dated by him to Van Wurmb, 1784 and not to Lacépède, 1799 as usual.

In his 1983 and 1984 papers Röhrer-Ertl makes the following statements:

1. Linnaeus's (1758) *Simia satyrus* was based entirely on the chimpanzee (1983:303, 306), whereas in 1766 the same name was now a composite of the Orang Utan and the Chimpanzee, the former standing first in Linnaeus's list.
2. Hoppe (latinised as Hoppius) in 1763 was the first to distinguish the two apes nomenclaturally, calling the Orang Utan *Simia pygmaeus* and basing his description of it primarily upon that of Edwards (1758).
3. When in 1766 Linnaeus recombined the two species as *Simia satyrus*, he placed the Orang Utan first, and treated the Chimpanzee as a subspecies, *Simia satyrus indicus*, so in effect restricting the name *S. satyrus* to the Orang Utan.
4. Although Linnaeus (1758) based *Simia satyrus* primarily on the Chimpanzee, his next action (as first reviser!) made him switch the name to the Orang Utan. Gmelin (1788) consolidated these revised views of Linnaeus by using *Simia satyrus* for the Orang Utan only, and *Simia troglodytes* for the chimpanzee. Hence, the author claims, the prior available name for the species is *satyrus* Linnaeus, 1758, not *pygmaeus*.
5. Although Opinion 114 (1929) forbade the use of the genus name *Simia* and the combination *Simia satyrus*, Röhrer-Ertl considers this as permitting the continued use of *satyrus* in other combinations (his text is not quite clear at this point).
6. Should the specific name *satyrus* be suppressed in future, giving priority to *pygmaeus*, the latter name should be cited as Hoppius, 1763, as Linnaeus had nothing to do with the name.
7. Van Wurmb (1784) studied a mature Orang Utan in Batavia, which he referred to as *Pongo van Borneo*. Röhrer-Ertl interpretes Kraus (1970), i.e. the 1970 German translation of the 1964 edition of the International Code of Zoological Nomenclature, as requiring that this name be latinised as *Pongo borneensis*. Consequently the generic name *Pongo* van Wurmb, 1784 antedates *Pongo* Lacépède, 1799.
8. Study of international alliances and trading of the times makes it more likely that Edwards's young Orang Utan had come from Sumatra; and Röhrer-Ertl indeed finds the characters of the Sumatran subspecies in Edwards's figure. Therefore, *Simia satyrus* Linnaeus, 1758 has as its type locality

Sumatra. The first name for a specimen from Borneo is van Wurmb's (1784) *Pongo borneensis*.

We propose to take these points one by one. To anticipate, we are of the firm opinion that the conclusions and interpretations are incorrect according to the rules of zoological nomenclature.

1. The characterisation of *Simia satyrus* in the 10th edition (1758) of Linnaeus's *Systema Naturae* begins as follows:

“S[im]ia ecaudata subtus nuda. *Syst.nat.* VI. p.3.

Satyrus indicus. *Tulp.obs.III.c.56.*”

The first reference is to the 6th edition of *Systema Naturae*. We have been unable to obtain the 6th edition (1748), but the 7th (1748) which according to Soulsby (1933:10) is a reprint of the 6th, but with German instead of Swedish names, gives on p.3:

“1. *Simia ecaudata subtus glabra.* *Tulp. obs.t. 271. Bont. ind. 85. Satyrs.*”
Bontius's animal (1658, in Piso, *De Indiae utriusque re naturali et medica*: 84, 85, fig.), which he named “Ourang Outang sive Homo silvestris”, and saw alive (probably in Batavia), evidently is an Orang Utan, although other species may be mixed in with his account: the (very poor) figure shows a hairy lady. Röhrer-Ertl (1983: 303) suggested that Bontius's animals might be abnormally hairy human beings. Presumably, however, Bontius, a physician, knew a human being when he saw one, and the name Orang Utan was widely used in the Indies for the ape. Camper (1782: 25) likewise did not hesitate to identify Bontius' animal with this species.

So, from both 10th and 7th (= 6th?) editions of his work, Linnaeus's sources for *Simia satyrus* were Tulp, who described a chimpanzee, and Bontius, who described primarily, but perhaps not solely, orang utans. The ascription of the name can therefore only be decided by a lectotype selection, which would supersede all previous restrictions; but, for reasons given below, we would not recommend this course of action.

2. and 6. It is true that Hoppe's dissertation was the first description of an undoubted Orang Utan. Both date and authorship are however in question. Soulsby (1933: 137) shows that *Anthropomorpha* was first published as a dissertation in 1760 (the year of the promotion) and was later issued in various editions of Linnaeus's *Amoenitates Academicae* (1763, 1764, etc.). Thus the date should be 1760, not 1763 as stated by Röhrer-Ertl.

The question of the authorship of Swedish dissertations of the 18th and early 19th centuries is a peculiar and confusing one. The title page of Hoppe's dissertation says that it was submitted by him to a council of the medical

faculty of Uppsala University presided over by Linnaeus. At first sight this seems to implicate Hoppe as the author. But as Swedish zoologists have pointed out time and again (e.g. Westerlund, 1889: 21-23), from 1666 until 1852 the Swedish professors wrote the thesis, which was then printed at the pupil's expense and discussed by the pupil at his promotion. Only after 1852 was there the requirement that the thesis be written by the student; in the very few cases where this happened before 1852 the student would have "respondente auctore" printed before his name on the title page.

The author of the *Anthropomorpha* was therefore Linnaeus.

On the other hand, Röhrer-Ertl is correct in his claim that Edwards's Orang Utan was the type specimen of *Simia pygmaeus*. As he correctly states (1984: 30) Edwards sent Linnaeus a skull in 1759, and indeed Linnaeus mentions this gift in the 1766 (12th) edition of *Systema Naturae*; but of course it cannot be the type, not even a syntype, of *Simia satyrus*, a name published the year before Linnaeus received the skull! It would of course be very important, as well as of extreme historic interest, to ascertain if this skull is still in existence; Röhrer-Ertl (1984) notes that it is not in the Linnaean collections in London. There is however a skull of a juvenile Orang Utan from the "old collections" in Uppsala; this was discovered by the curator of the Zoology Museum of the University, Dr. Lars Wallin, and at the time of the visit to Uppsala by one of us (C.P.G.) in August, 1983, it was displayed in the cabinet of Linnaean types in that museum as possibly the one sent by Edwards. At present however, it cannot be definitely identified as the one in question (L. Wallin, pers. comm. to C.P.G.), so the matter is thus far unresolved.

3. and 4. To interpret Linnaeus as "first reviser" is an incorrect interpretation of the Code of Zoological Nomenclature. The definition of the "first reviser" in the 1985 Code (ed. 3), Glossary (p. 264), is: "The first author to subsequently cite names . . . or nomenclatural acts published on the same date and to choose one of them to have precedence over the other(s) . . ." In the present case, Linnaeus (1766), in using *Simia satyrus* primarily for the Orang Utan, merely changed his mind; there is no case of two names or nomenclatural acts having been published simultaneously, and by no stretch of the imagination can Linnaeus's change of mind be described as a "first reviser" action.

Moreover, it is incorrect to say that Linnaeus made a subspecies *Simia satyrus indicus*; Linnaeus of course had no subspecies, and in the present case, merely quoted Tulp's phrase, *Satyrus indicus*.

5. The crucial point is that the name *Simia satyrus* has been suppressed by Opinion 114 of the International Commission on Zoological Nomenclature. It has been suppressed for the purpose of the Law of Priority, so that *Simia*

satyrus Linnaeus, 1758, is unavailable and its oldest available synonym should be used: as we have noted above, the composite nature of the name means that it is unclear which subsequently proposed names could be synonyms of it, and only lectotype designation could alter this – but as the name is suppressed, the designation of a lectotype would be pointless. The name is not suppressed for the purposes of the Law of Homonymy, so that any later use of it is invalid, creating a junior homonym. Of course, *satyrus* can still be proposed as a new specific name in another genus; but this is irrelevant here. Different combinations with *satyrus* L., 1758 remain invalid, like Röhrer-Ertl's *Pongo satyrus* (L.).

7. Röhrer-Ertl is quite incorrect in his reading of Kraus (1970) that Van Wurmb's *Pongo van Borneo* should be considered as "*Pongo borneensis*". We do not see how such an interpretation could be placed on Kraus's translation of the Code of Nomenclature. Nowhere in this translation, nor in the new third official English/French edition of the Code, is there any rule to justify Röhrer-Ertl's viewpoint. The only case where a vernacular name may be treated as if it were proposed in Latin is with a family-group name proposed in vernacular before 1900 and subsequently latinised and generally cited with the author and date of the original vernacular. Van Wurmb's (1781; not 1784 as stated by Röhrer-Ertl) citing of *Pongo* is not the creation of a new Latin name, but the citation of the vernacular name *Pongo* (as used by the 16th-century traveller Andrew Battell) in an attempt to identify the Orang Utan with Battell's "*Pongo*" from Africa. There is neither *Pongo*, in the latinised sense, nor *borneensis* at all, in Van Wurmb's paper. Consequently the priority for the use of *Pongo* as a generic name returns to Lacépède, 1799; while the name *borneensis* must be ascribed to Röhrer-Ertl, 1983. (It escapes being a *nomen nudum* by virtue of his reference to Wurmb).

8. Röhrer-Ertl is quite wrong in his assessment of international trading relations in the mid-18th century; and his statement (1983: 303) that before 1775 all specimens of the Orang Utan came from Sumatra is certainly not true. Apart from Bontius (1658 – see above), we have the following statement by Valentijn (1726: 242) in his account of Borneo, in translation:

Also Orang Hoetans, or forest people, are found here [i.e. in Borneo], a kind of rare apes, that walk erect, and in all parts have the shape and habits of a human, only speech is lacking. I have seen two alive, the last with Mr. Camper, the seigneur of Ouwerkerk aan de IJssel, who still has the specimen in his possession, now in a jar in spirit at his home in Leiden.

The Mr. Camper mentioned by Valentijn was the Rev. Florentius Camper, who was Minister of the Dutch Reformed Church in Batavia from 1702 to 1713 and who settled in Leiden after returning from the Indies. Valentijn obviously saw the live Orang Utan with Camper in Batavia, the pickled one in Leiden.

Florentius Camper's son, the famous Petrus Camper, in his well known treatise on the anatomy of the Orang Utan (Camper, 1782: 25) emphatically stated that the Orang Utan "is found mostly, if not exclusively, in Borneo, although according to a report from Mr. Relian they also should be found in the inaccessible mountains of Java" [translation]. There is no indication whatever in Camper's work that the species was known to occur in Sumatra. That Camper was well acquainted with the species is shown by the fact that between 1770 and 1777 he saw no less than 8 specimens (one of which alive), not counting the one in the collection of his father.

All this shows that it is more likely that before 1775 all specimens of the Orang Utan came from Borneo, rather than from Sumatra as Röhrer-Ertl would have it.

The Dutch had been visiting Borneo since 1600 and had trading posts there; evidently Orang Utans were brought regularly from Borneo to Batavia. There were certainly therefore Bornean Orang Utans brought to Europe before the 1770s, and as relations between the English and the Dutch were not invariably unfriendly (there were numerous scientific exchanges, and the Dutch stadtholder Willem III even became King William III of England), it is certainly not excluded that Edwards's specimen could have been Bornean.

For what it is worth, the skull in Uppsala (which, as we noted above, may (!) be the one given by Edwards to Linnaeus) has clearly the characters found by Röhrer-Ertl (1984) to be those of the Bornean taxon.

There is a further point to be made, involving a certain irony. If Bontius's animal really was a Orang Utan, the name based on it, *Simia troglodyta* Linnaeus, 1760 (Amoen. Acad., 6: 71, pl. fig. 1) would become a synonym of *Simia pygmaeus* Linnaeus, 1760 (Amoen. Acad., 6: 68, pl. fig. 4). As the two names were published simultaneously, first reviser action is needed to give one precedence. As far as we know, this has never been done; so we hereby select *pygmaeus* over *troglodyta*.

In conclusion, therefore, we cannot accept Röhrer-Ertl's claims on the nomenclature of the Orang Utan, regardless of the merits of his taxonomic conclusions. The correct generic name is *Pongo* Lacépède, 1799; the full species name is *Pongo pygmaeus* (Linnaeus, 1760); and we suggest that, in view of the uncertainty about the origin of the type specimen, common usage be maintained by restricting the type locality to Borneo.

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