

ON THE CORRECT NAME FOR THE WHITE SQUIRREL OF SIAM.

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In the first volume of this Journal I dealt with the white squirrels of Siam and of the Island of Si Chang, giving reasons why I considered that the mainland animal should be regarded as the typical form of *Sciurus finlaysoni* of Horsfield. In the Journal of the Federated Malay States Museums (vol. VII, p. 55) Mr. H. C. Robinson traverses my conclusions, and is of opinion that the island race, named by me *Sciurus finlaysoni portus*, is the typical form, while the mainland animal is in need of a name; and he proposes *Callosciurus finlaysoni tachardi* for it.

He writes:—"Mr. Kloss attempts to justify his contention by referring to the original description by Horsfield (*Zool. Res. Java*—, 1824) in which that author states that 'this species has hitherto been mentioned by Buffon alone from the following concise notice in P. Tachard's travels'—while, in addition, Mr. Kloss also refers to Anderson, who states that 'the type of *Sc. finlaysoni* was obtained in Siam by Dr. Finlayson and another was procured by the same traveller in Si Chang Island. These two squirrels are exactly alike, being white squirrels with a yellowish tinge.' The latter clause shows that Dr. Anderson did not study these two specimens in any great detail.

"Further, Mr. Kloss quotes Horsfield (*Cat. Mamm. E. Ind. Co. Mus.*, p. 154, 1851) as stating that the locality of the specimen in the Museum of the East India Company (transferred to the British Museum in 1879) was "Siam." This is, however, not strictly accurate. The habitat of the *species* is given as "Siam" while a *specimen* "A" is mentioned "from G. Finlayson's Collection during Crawford's Embassy to Siam and Hue," which is not quite the same thing.

"The whole crux of the matter, however, is that the older authors paid no very particular attention, either to exact localities of their specimens or to minute subspecific differences, and Koh Si Chang is certainly near enough to Siam to be quoted as such by Horsfield. The conception also, of a definite specimen as a type of a species when one or more were available is of very much later date than Horsfield in 1824 or for the matter of that than Dr. Anderson, writing in 1878.

"We come, therefore, to the first detailed revision of the group on modern lines, that of Wroughton (*Ann. & Mag. Nat. Hist.* (8) ii, pp. 393 et seq., 1908). This paper has been quoted by Mr. Kloss but he has unfortunately omitted to note that therein the specimen from Koh Si Chang has been definitely selected as the type, as indeed had already been done by Bonhote in 1900. The dimensions given by Wroughton perfectly agree with those of the type of *Sc. f. portus*, Kloss.

"Under the rules governing nomenclature, as almost universally

recognised by zoologists, the first reviser has the right to designate the type of a species from the original material, if such has not been done by the author of the species.

"*Sciurus finlaysoni portus* therefore becomes a pure synonym of *Callosciurus finlaysoni finlaysoni* (Raffles)."

As this is a good instance of the questions that crop up regarding zoological nomenclature owing to the lack of precision of the older authors, I propose to deal with it in some detail. On p. 157 of the first volume of this journal I wrote:—

"Koh Si Chang has been regarded of late as the type locality of *Sciurus finlaysoni*, but in looking through the history of that name it becomes evident that this is a mistaken view, and that it applies to the white squirrel of the Siamese mainland.

"*Sciurus finlaysoni* was described by Horsfield in 1824 (*Zoological Researches in Java*), from specimens collected by Dr. George Finlayson, the naturalist who accompanied Crawford in his mission to Siam and Cambodia. It is evident that Horsfield, when erecting the species, had in mind the mainland animal, for he says that it is Buffon's "Ecuriel blanc de Siam" which was seen at Loupeen, a village situated in the extensive forests of Siam, by P. Tachard in his travels. The account of the species closes with an extract from Finlayson's manuscript, describing the white squirrel which ends "one of the specimens was shot by Lieut. Rutherford on the Islands called Sichang in the Gulf of Siam." It is once more obvious that Finlayson, too, was dealing with the mainland animal, and that this reference to the island example was merely a detail as to extent of range.

"Further, Horsfield, in the *Catalogue of the Mammalia in the Museum of the East India Company, 1851*, again gives the locality of a specimen of *S. finlaysoni* as Siam, while Anderson who personally studied all the types of what he regarded as varieties of *Sciurus ferrugineus* states (*Zoological Research in Yunnan*, p. 244) that "the type of *S. finlaysoni* was obtained in Siam by Dr. Finlayson and another was procured by the same traveller in Sichang Id."

My contention was that Horsfield was dealing with the animal of the mainland, for he gave as a synonym Buffon's "Ecuriel blanc de Siam" and says early in his account that the species had hitherto been mentioned by Buffon alone who knew of it from the interior of Siam.

It is evident from his M. S. that Finlayson collected more than one specimen of white squirrel, only one of which came from Koh Si Chang however, and we now know that a white form does not occur on any other island of the Inner Gulf; so since Koh Si Chang is placed in opposition to some other place the rest of his material must have come from the continent. It appears to me quite clear from his references to Buffon that it was this latter material that Horsfield had in view when describing the species, so that the mainland, mentioned first by him, must be regarded as the locality. In fact he is precise, he says in effect:—*Sciurus finlaysoni* is Buffon's "Ecuriel blanc de Siam."

With regard to Horsfield's "Catalogue", Mr. Robinson is quite correct in stating that the habitat of the species *Sc. finlaysoni* is given as Siam, and that a specimen "A" is there recorded. But as Horsfield was well aware that a white squirrel had been obtained by Finlayson on Koh Si Chang, and yet makes no reference to that place, it may naturally be inferred that specimen "A" was not the island animal. However that may be, he says that the species occurs in Siam; not on Koh Si Chang.

The provenance of *Sc. finlaysoni* seems to be left in no doubt, but when uncertainty exists, as is so often the case in the writings of the older authors, the first reviser has the right to designate a type-specimen as Mr. Robinson says. He has, however, equally the right to indicate a type-locality.

Though I do not consider it necessary in this case to call in the assistance of a reviser, the first is unquestionably Dr. John Anderson, in whose "Zoological Researches in Yunnan" published in 1878 there are reviewed under "*Sciurus ferrugineus*" a number of squirrels which he considered to be only varieties of that species. Fortunately as regards *Sc. finlaysoni* he is very explicit. He writes:—"I have personally studied the types of all these supposed species. The type of *S. finlaysoni* was obtained in Siam by Dr. Finlayson, and another was procured by the same traveller in Sichang Island off the coast of Siam."

That Anderson regarded various examples from the mainland and that from the island as exactly alike, is no matter in so far as the present question is concerned, nor is the manner in which he studied the specimens. His remark evidently applies to colour and not to size, since the species *Sc. bocourti*, also considerably smaller than *Sc. ferrugineus* is also regarded by him as merely a colour variety of the larger animal. At that date the poor appearance of the skins veiled differences in size, and less importance was attached to dimensions than to-day; measurements of specimens in the flesh were generally not recorded, and as the skulls were frequently left within the skins they were often ignored for purposes of comparison.

If, as Mr. Robinson says, the date of the conception of a definite specimen as a type is more recent than Anderson's time, the latter seems to have unconsciously anticipated the principle in this instance.

Regarding the point as settled and Anderson as the first reviser, there was no need for me to bring into discussion the later papers of Messrs. Bonhote and Wroughton. As a matter of fact, however, it cannot be said that a "specimen from Koh Si Chang has been definitely selected as the type" by the former; Wroughton says that "the type-locality is the island of Sichang" and gives dimensions of a "type" which, however, he does not cite: but this is not quite the same thing. Bonhote again (*P. Z. S.*, 1901; not 1900, where he only records a number of squirrels from the more northern parts of Siam as *Sc. finlaysoni*) did not select a type as stated by Mr. Robinson; he gives measurements of the "type of *S. finlaysoni*" (which differ somewhat

from those of Wroughton) but neither indicates the specimen, nor even its provenance.

I was of course aware (Journal, p. 159, para. 2) that these authors both probably regarded the type locality as insular, and my note was written with the object of showing that this was a mistaken view.

Mr. Wroughton's paper is subsequent to the "Zoological Researches" and the only way in which Anderson's statement could be discounted, even though the type he saw may have disappeared—as has happened more than once—would be to prove that a white squirrel does not occur in Siam. It is, however, very common there, and any attempt to select a lectotype is invalid unless an example, from the Siamese mainland of Horsfield's original series is available.

C. f. tachardi Robinson, is thus a synonym of *Sc. f. finlaysoni* Horsfield, and the name of the Koh Si Chang race remains *Sc. f. portus*.