

*R. marmoratus*. The association of the specific name of *marmoratus* with a type specimen from Cuba would be desirable should populations of *marmoratus* elsewhere be proposed for specific or subspecific status. Rivas (1945) asserted that the types of *marmoratus* were discovered in the United States National Museum. His arguments that two specimens labeled *R. cylindraceus* were, indeed, Poey's missing types of *marmoratus* were highly conjectural (para. 1 of the application). To our knowledge no other specimen has been recognized or designated as a type of *marmoratus* and, to minimize the possibility of any future nomenclatural problems, we hereby propose as the neotype of *R. marmoratus* the same specimen that Rivas designated as the lectotype, namely USNM 37429.

The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers:
  - (a) to set aside all previous fixations of type specimen for the nominal species *Rivulus marmoratus* Poey, 1880 and to designate as neotype specimen no. 37429 in the United States National Museum;
  - (b) to rule that the specific name *marmoratus* Poey, 1880, as published in the binomen *Rivulus marmoratus*, is to be given precedence over the name *ocellatus* Hensel, 1868, as published in the binomen *Rivulus ocellatus*, whenever the two names are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
  - (a) *marmoratus* Poey, 1880, as published in the binomen *Rivulus marmoratus* and as defined by the neotype designated in (1)(a) above, with the endorsement that it is to be given precedence over the name *ocellatus* Hensel, 1868, as published in the binomen *Rivulus ocellatus*, whenever the two names are considered to be synonyms;
  - (b) *ocellatus* Hensel, 1868, as published in the binomen *Rivulus ocellatus*, with the endorsement that it is not to be given priority over the name *marmoratus* Poey, 1880, as published in the binomen *Rivulus marmoratus*, whenever the two names are considered to be synonyms.

**Comments on the proposed designation of a neotype for *Coelophysis bauri* (Cope, 1887) (Reptilia, Saurischia)**

(Case 2840; see BZN 49: 276–279; 50: 147–151, 236–239, 291–294)

(1) S.P. Welles

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I oppose the application by Colbert et al., since it is unnecessary and contrary to Article 75 of the Code because there has been no loss or destruction of the original type material. We would have complete nomenclatural chaos if the type, even though a poor specimen, could be replaced whenever a better specimen was discovered and designated a neotype. To carry this to absurdity: if an even better specimen were found later, could it be made a neoneotype? I strongly object to replacing an existing type specimen. Even though the type be indeterminate (a subjective conclusion) the name must remain attached to that specimen.

(2) George Olshevsky

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I would like to express my strong support for Hunt & Lucas (1991), who recognized the likely indeterminate nature of the type specimen of *Coelophysis bauri* and the probable unsuitability of that name for the numerous well-preserved specimens discovered at the Ghost Ranch quarry. In coining the name *Rioarribasaurus colberti* Hunt & Lucas properly exercised their freedom, as professional naturalists, to differ with Colbert about the identity of the Ghost Ranch material. It must be emphasized that the debate that Hunt & Lucas opened can be resolved only by restudy and comparison of the type material of *Coelophysis bauri* and of *Rioarribasaurus colberti*, and not by arbitrary exercise of plenary powers by the Commission. If the Commission declares the holotype of *R. colberti* to be the neotype of *C. bauri*, this will sink *R. colberti* as a junior objective synonym and squelch further debate by fiat rather than by science. The procedure already exists for doing away with the name *R. colberti* without involving the Commission, in the event that a convincing argument is presented for regarding it as a junior subjective synonym of *C. bauri*. But should their proposal become an official ruling, the paleontologists who drafted Case 2840 will have sidestepped their part of the necessary debate and revisory work.

Designation of neotypes by the Commission should be a last resort, as when original type specimens cannot be located. Despite the confusion regarding the status of *Coelophysis bauri*, a lectotype was validly designated by Colbert and still exists, together with associated material. There is therefore no true or pressing reason to designate a neotype. In my opinion, all other approaches have not yet been exhausted in the case of *C. bauri*. Diligent reexamination of the original material could establish it to be a valid species of small theropod closely related to the Ghost Ranch species *R. colberti*. Indeed, the new combination *Coelophysis colberti* could eventually prove to be the most apt name for the latter, retaining the well known generic name *Coelophysis* but reflecting a species-level distinction from Cope's original material.

In coining the name *Rioarribasaurus colberti* Hunt & Lucas (1991) did not 'suppress' the generic name *Coelophysis* or the specific name *bauri*, which would have been nomenclaturally improper; they simply gave a new name to material which they considered could not be referred to Cope's taxon. Paleontologists who believe that *Coelophysis bauri* and *Rioarribasaurus colberti* are synonyms are entirely free to apply the former name to the Ghost Ranch specimens and to discard *R. colberti* as a junior subjective synonym, without involving the Commission. However, those who disagree with this position now have an available name for the Ghost Ranch material. Approval by the Commission of the application by Colbert et al. would leave Cope's material nameless, if it were considered distinct. It could not then be discussed without inventing a third name, which is quite inconsistent with the general desire to avoid the proliferation of unnecessary names.

I may add that there is no compelling reason to assume that only one theropod species is represented at Ghost Ranch, despite the widespread but actually unjustified support that this notion enjoys among the paleontological community.

Should further research disclose the existence of multiple taxa the Commission, in suppressing *Rioarribasaurus colberti*, might find itself in the position of having suppressed the name of a perfectly valid species.

The name *Coelophysis bauri* should remain attached to the material described by Cope and von Huene, and more recently by Padian (1986). In my opinion designating the holotype of *Rioarribasaurus colberti* as the neotype of *C. bauri* would constitute an infringement of the basic freedom of naturalists to name the objects that they study.

(3) Elizabeth L. Nicholls

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The name *Coelophysis bauri* is well established in both professional and popular literature. The excellent material from Ghost Ranch makes it one of the best known dinosaurs. I request that the name *Rioarribasaurus colberti* Hunt & Lucas, 1991 be rejected; our taxonomic literature is already cluttered with an excess of names. Creating a new name for a well known species only serves to complicate our work. If the type material is non-diagnostic, then I consider the cause of paleontology and taxonomy would be better served by designating a neotype than by having an unnecessary name.

(4) Louis L. Jacobs

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I wish to express my opinion that the name *Coelophysis bauri* should be retained for the Ghost Ranch specimens. As one who has done research including *Coelophysis*, I can state that I have had no problems of confusion that require the muddying of the waters with a new name for *Coelophysis bauri*.

(5) Donald F. Glut

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I accept the argument of Hunt & Lucas (1991) that Cope's taxon *Coelurus bauri* (= *Coelophysis bauri*) was based on indeterminate material, and that the theropod collected in such abundance at Ghost Ranch is therefore not unequivocally associated with the name by which it is known in both the paleontological literature and popular publications. However, I agree with Colbert et al., and with others who have supported their application, that in this particular case strict adherence to the Code should be waived in the interest of stability. I support the proposed designation of the complete skeleton AMNH 7224 as the neotype of *Coelophysis bauri*.

## (6) Armand de Ricqlès

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En tant que chercheur et enseignant dans le domaine des tétrapodes fossiles et travaillant personnellement sur la paléohistologie des Dinosauriens, je me range pleinement à l'opinion présentée par Colbert et al.

Dans le but pratique de conserver l'usage très répandu et ne prêtant pas à confusion du nom du genre *Coelophysis*, je suis d'avis que la Commission use de ses pleins pouvoirs selon la procédure suggérée (BZN 49: 278, para. 11), ou bien qu'elle use de toute autre procédure qui pourrait lui apparaître formellement plus opportune mais concourant à la même fin.

## (7) P.K. Tubbs

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The Commission Secretariat has received an offprint of a paper by G.S. Paul (1993) which relates to this case.

Paul discusses the anatomy of the Whitaker Quarry (Ghost Ranch) specimens, and considers (p. 397, last para.) that only one species is represented. He finds no genus-level distinction between the Ghost Ranch skeletons and specimens of *Syntarsus rhodesiensis*, which is the type species of *Syntarsus* Raath, 1969. Paul notes (p. 400, para. 5) that 'referring the Whitaker specimens to *Coelophysis bauri* (Cope, 1889) has the advantage of retaining a popular name' but adds that because of the fragmentary nature of the original material the name *C. bauri* 'is a nomen dubium'. He continues 'the attempt by Colbert et al. (1992) to designate a diagnostic neotype for *C. bauri* (the type of *R. colberti*) effectively accepts the indeterminate nature of the lectotype, and appears to be contrary to Art. 75(a) of the Code, which states that a neotype can be designated only ... when no type material is believed to exist'. While true, this last statement by Paul (see also the above comment (1) by S.P. Welles) overlooks the fact that Colbert et al. have, in accordance with Recommendation 75E, sought the use of the Commission's plenary powers for the very reason that a neotype designation would otherwise be invalid.

Paul continues (p. 400, para. 7) 'it is here suggested that *Rioarribasaurus* [Hunt & Lucas, 1991] be made a junior synonym of *Syntarsus*. The latter name has priority, and is based on diagnostic type material ... In this case, *Syntarsus* would include the species *S. colberti*, *S. rhodesiensis* and *S. kayentakatae*. Alternatively, if the validity of *Coelophysis* is accepted then it includes *C. bauri*, *C. rhodesiensis* and *C. kayentakatae*'. In his paper Paul adopts the name *Syntarsus colberti* for the Ghost Ranch species, but he retains the name COELOPHYSIDAE Paul, 1988 for the family containing *Syntarsus* because 'the type material cannot be demonstrated to not belong to the higher taxon'.

**Additional reference**

**Paul, G.S.** 1993. Are *Syntarsus* and the Whitaker quarry theropod the same genus? Pp. 397-402 in Lucas, S.G. & Morales, M. (Eds.), *The Nonmarine Triassic. New Mexico Museum of Natural History & Science Bulletin*, no. 3.