

The proposition by Thomson is sensible in that it eliminates the problem as outlined above, and gives appropriate recognition to the person who originally described the south-western Australian species as *Chelodina colliei* Gray, 1856 (used for 136 years). Thomson's Case 3351 and Comment in BZN 64: 127–128 are reasonable and provide the best solution to this nomenclatural problem.

**Comments on the proposed conservation of usage of *Testudo gigantea* Schweigger, 1812 (currently *Geochelone (Aldabrachelys) gigantea*; Reptilia, Testudines)**  
(Case 3463; see BZN 66: 34)

(1) George R. Zug

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I support the application of Frazier to conserve *Geochelone gigantea* Schweigger, 1812 by the acceptance of a neotype designation. Frazier (2006a, 2006b) detailed the confusion and nomenclatural instability that has resulted from Bour's (1982) proposal of *Dipsochelys*. While some turtle systematists have followed Bour's proposal, others have not, and the general biological community, especially ecologists and herpetoculturists, have continued to use *Geochelone gigantea* or *Aldabrachelys gigantea*. Given the uncertainty regarding the specific identity of the type, which was poorly illustrated, Bour upset nomenclatural stability of the Aldabran giant tortoise by his failure to follow the principle of the earlier Code (1961 – Article 23b(iii)) to request an evaluation by the Commission on the advisability of changing the widely used (i.e. outside the turtle community) name *Geochelone gigantea* that had instant recognition by the public and biologists for nearly three-quarters of a century. Frazier's (2006a) designation of a neotype fixes the name *Geochelone gigantea* Schweigger to the giant tortoises of Aldabra. The discovery of Schweigger's purported type specimen (Bour, 2006) immediately followed the designation of the neotype, and the publication of this discovery continues to foster nomenclatural confusion. The chain of evidence for the purported holotype has too many uncertainties, and these will continue to cause arguments on the assignment of the nomen *gigantea* whereas the acceptance of the neotype designation resolves the problem and promotes nomenclatural stability.

(2) Katy Beaver

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I would like to support the petition to conserve the name of the Aldabra tortoise as *Testudo gigantea*.

As secretary of the Science Committee of the Seychelles Islands Foundation (which manages Aldabra Atoll) for some years, it was often frustrating to find so many names given to this animal icon of the atoll. The use of the specific name *gigantea* I support unreservedly.

In education and awareness work, which I am much involved with, in particular for local people and for tourists, it has been a constant headache to know how or

what to call the Giant Tortoise, which is important both in local culture and history, and also as a famous and prominent animal found in Seychelles. Sometimes it is not necessary to use a Latin name, but when this information is given for all other species in the text, it seems odd not to put one for the Giant Tortoise. Most people cannot fathom why there should be so much fuss made over a Latin name, and the fact that there have been so many different names is quite an embarrassment! For the sake of sanity as well as science I welcome this petition and fully support it.

(3) Karen A. Bjorndal

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I support the petition to conserve the specific name *Testudo gigantea* Schweigger, 1812, for the Aldabra tortoise. I agree with Frazier that *T. gigantea* is the established name. As explained in Case 3463, it has been in continuous use for more than 100 years and has been widely used in the scientific literature. It is important to settle this nomenclatural issue because there has been considerable confusion since 1982. The neotype for *T. gigantea* (USNM 269962) that was designated in 2006, should be maintained.

(4) Charles R. Crumly

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I write in strong support of the petition by Jack Frazier to conserve the usage of *Testudo gigantea* Schweigger, 1812 by the designation of a neotype. Further, I agree that *Testudo dussumieri* Gray, 1831 should be suppressed.

The arguments of Frazier are compelling, logical, well-reasoned, and will result in the least amount of confusion – especially among scholars unfamiliar with the ancient, arcane, difficult to interpret and sometimes difficult to access literature. The most obvious advantage of adopting Frazier's application is the stabilisation of a name familiar and in wide use for over 100 years. In the last 25 years, great confusion has prevailed, partly caused by those that support a name other than *gigantea* for the Aldabra tortoise. Indeed, those that have rejected *gigantea* have, with equal misplaced certainty, suggested significantly different flawed proposals.

The need to stabilise the name for the Aldabra tortoise is becoming more and more serious due to the potential risk of extinction. The only extant population is on a remote and isolated island and is vulnerable. Hypothesised sea level changes represent a real threat to a low lying island such as Aldabra. Maintenance of the neotype with its documented collection locality on Aldabra is the most convenient and least ambiguous means by which to preserve the best name for Aldabra tortoises. The usage of *Testudo gigantea* Schweigger, 1812 for the Aldabra tortoise is obvious, appropriate and least disruptive, and should be conserved.

(5) Indraneil Das

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I am writing in support of the petition by J. Frazier to conserve the specific name *Testudo gigantea* Schweigger, 1812, in the interest of nomenclatural universality and stability. The nomen *Testudo gigantea* for the Aldabra tortoise, a species of great conservation concern, has been in use for over a century. Thus, resurrection of the nomen oblitum *Testudo dussumieri* Gray, 1831 and invalidation of neotype designation for *T. gigantea* is not deemed worthy of support, particularly since the rediscovery of the supposed holotype is not unequivocally proven.

(6) A.W. Diamond

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I write briefly in support of the case made by J. Frazier for the conservation of the specific name *Testudo gigantea* Schweigger 1812 and suppression of *Testudo dussumieri* Gray 1831.

I have read J. Frazier's case carefully in its entirety, and am impressed by the rigour with which he has navigated what can only be described as the tortuosities of tortoise nomenclature. His credentials are impeccable and his case incontrovertible.

Great confusion has been caused in this area recently and there is a clear need to set the record straight as J. Frazier proposes.

(7) Clive Hambler

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I very strongly support the petition from Frazier to stabilise the nomenclature of this species in the relatively straightforward way proposed, using USNM 269962 as the neotype of *T. gigantea*.

The species name *gigantea* is very widely used, far more than any alternatives, and has been for decades. Almost all the ecologists who work on this species, including myself, have used and still use the name *Geochelone gigantea* (e.g. Bourn et al., 1999). There has been very unwelcome confusion in some quarters about the name, with proposals to use *Dipsochelys elephantina* or *Dipsochelys dussumieri*, although most experts on the ecology of the species have ignored this. The confusion was exacerbated by the failure of some authors to appreciate phenotypic plasticity in the species.

As the petition demonstrates there have been a number of proposed name changes, which hopefully will not be adopted and all of which I have ignored (fortunately, as it proves). To minimise further confusion, I advise people to continue to use *gigantea* unless there is an overwhelming reason not to. I would be far more at ease with a proposed change of generic name (if taxonomic evidence became strong enough) than a different species name.

As an ecologist and conservationist, I want strong links to be retained between the diverse publications on this species which is IUCN Red Listed and which arouses wide public interest. I have used the name *Geochelone gigantea* for several references to this species in my own textbook on conservation (Hambler, 2004, pp. 7, 361) and

other publications ( Hambler et al., 1985, 1993; Hambler, 1994; Linfield et al., 1993; Seaward et al., 1996). Both editions of a major student textbook on biogeography (Whittaker, 1998, 2007) also use this name. It is readily apparent that the species name *gigantea* is embedded in a wide range of literature from different biological disciplines which students may encounter early in their studies.

In addition to literature which is easy to find the name *gigantea* is used in a number of unpublished reports from British university student expeditions (e.g. from Oxford in 1983, 1988, 1990 and Southampton in 1982), available from the Royal Geographical Society (with the Institute of British Geographers) and in various university libraries.

In teaching at undergraduate level and above, and in conservation literature, I advise that until there is a decision from the Commission it is highly desirable to continue to use *gigantea*; this will make links between publications, and ecological progress, much easier for students and practitioners. It is not in the interests of education or biology to maintain the current volatility which has already gone on too long. To my mind, the main value of pointing students towards the other names is as an illustration of the great intricacies of some scientific and nomenclatural controversy.

#### Additional references

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(8) Thomas Leuteritz

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I support the proposed conservation of usage of the specific name *Testudo gigantea* Schweigger, 1812, by maintenance of a designated neotype, and suppression of *Testudo dussumieri* Gray, 1831. I agree with Frazier (BZN **66**: 34) that *T. gigantea* is

the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years, and it has been recognised as the oldest name for the Aldabra tortoise for more than 50 years). Furthermore, as Frazier documented, there has been much nomenclatural chaos, and it is necessary to stabilise the nomenclature of the Aldabra tortoise.

(9) Nirmal Jivan Shah

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We wish to support the petition by Jack Frazier. We strongly recommend that *Testudo gigantea* be used to refer to the Aldabra Giant Tortoise. We note that this is the name Gazetted by the Seychelles Government in 'Wild Animals (Giant Land Tortoises) Protection (Amendment) Regulations (1999. S.I. 39 of 1999)'.

*T. gigantea* has been used for over 100 years in hundreds of publications thus proving it is the established name. The current confusion in nomenclature caused by only a few authors is proving to be more than a nuisance and hindering progress in science and conservation. It is therefore a high priority to have one established name for the Aldabra Giant Tortoise. We believe it would be parsimonious to standardise the name as *Testudo gigantea*.

(10) James B. Murphy

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Please consider my comments on Case 3463: (1) *Testudo gigantea* is the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years, it has been recognised as the oldest name for the Aldabra tortoise for more than 50 years, it is widely used in the literature, etc.; (2) there has been nomenclatural chaos, particularly since 1982; (3) it is necessary to stabilize the nomenclature and fix the name of the Aldabra tortoise and (4) the simplest way to achieve this is by maintaining the neotype for *T. gigantea* (USNM 269962) that was designated in 2006.

(11) Ian R. Swingland

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I fully support the retention of the name *Geochelone gigantea* for two reasons: i) it must retain a common usage stability which is allowed within the ICZN rules, and ii) I am tired of constant changes being made to the name as though it was a game, no doubt for very legitimate taxonomic reasons. The arguments and precedents and parsimony analysis may have produced all sorts of errors in the past but there are

many other scientists working on the chelonians in ecology, behaviour, genetics, population studies, and other aspects of their biology who find all this indecision and constant changing of the Latin binomial very unhelpful to the science or the conservation of the species. I will always use *Geochelone gigantea* as a matter of principle and clarity however erroneous that is. We know what species we are dealing with here and there is no risk of confusion to misdirect conservation efforts; I must say the idea of fiddling about with names, when tortoises are burning and could use our taxonomic help, I find very distasteful. I worked on this species for 10 years, two of which I lived on Aldabra Atoll. I was later the Founding Chairman of the IUCN SSC Tortoise Specialist Group, and then Director of the First World Congress of Herpetology. Please accept my total support for this move to retain the original name in common usage.

(12) David Bourn

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As a long-standing participant in various field studies of tortoises on Aldabra Atoll, Seychelles, I am pleased to support the above petition by Jack Frazier of the Smithsonian Institution. In my considered opinion, the continuing nomenclatural uncertainty has prevailed for far too long, and needs to be resolved as soon as possible to avoid perpetuating further ambiguity and confusion.

(13) Oguz Turkozan

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I support the proposal to conserve the name of the Aldabra tortoise, *Testudo gigantea* Schweigger, 1812, for the following reasons: while *T. gigantea* is the established name for the Aldabra tortoise (i.e. it has been in continuous use for over 100 years and has been recognised as the oldest name for the Aldabra tortoise for more than 50 years) there has been considerable nomenclatural instability since 1982. I consider necessary to stabilise the nomenclature by maintaining the neotype for *T. gigantea* (USNM 269962) that was designated in 2006.

(14) Jay M. Savage

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I wish to fully support the application by Jack Frazier relating to the name *Testudo gigantea*. Previous authors have manipulated the evidence as it relates to this name to allow them to propose new ones. Many years of usage in this case should trump speculation as to the origin of the type specimen which in any case cannot definitely be identified.

## (15) Gisella Caccone

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As a concerned scientist working for the past 20 years on evolutionary genetics and conservation of Giant Galapagos tortoises, both in Aldabra and Galapagos, I have been made aware that there is a case submitted to the Commission to fix the specific name of the Aldabra tortoises once and for all to *gigantea*.

I completely and enthusiastically support this case. It would be a great service to the scientific and management community if the name of the Aldabra tortoise were fixed and the obvious choice is the established / customary / accustomed name of *gigantea*.

In the past years there have been a series of names proposed and used which have confused the issue and misinterpreted and misused taxonomic rules. For those of us working on conservation issues this has rendered our efforts much less effective; we cannot protect what we cannot name and identify precisely.

I really hope that the Commission can decide in favour of case 3463.

## (16) James F. Parham

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I support the petition described in Case 3463 to conserve the name *Testudo gigantea* Schweigger, 1812 for the Aldabra tortoise by retaining USNM 269962 as the neotype of this taxon and suppressing *Testudo dussumieri* Gray, 1831. There has been substantial nomenclatural chaos and confusion about what is the correct name for Aldabra tortoises. For over 100 years, the name *Testudo gigantea* was widely used for Aldabran tortoises. *Testudo gigantea* was designated as the type species of *Aldabrachelys* by Loveridge and Williams (1957) and the names *Geochelone gigantea* and *Aldabrachelys gigantea* remain the most widely used names for Aldabran tortoises today. This is despite the fact that Bour (1982) created confusion by claiming that the type of *Testudo gigantea* was certainly a Mascarene tortoise (genus *Cylindraspis*) and then later (Bour, 2006) claiming that it refers to a South American tortoise (genus *Chelonoidis*). The rediscovery of the holotype of *T. gigantea* is not unequivocally proven and will continue to provoke debate about the name and nomenclatural instability. Therefore the simplest solution is to maintain USNM 269962 as the neotype of *T. gigantea* and suppress *T. dussumieri* Gray, 1831, as recommended by Frazier (2006) and detailed in Case 3463.

## (17) Anders G.J. Rhodin

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I support the petition by Frazier to conserve the names *Aldabrachelys* and *Testudo gigantea* for the Aldabra giant tortoise. Though strict adherence to the Code might require the name changes proposed by Bour and Gerlach, the question of the identity of the recently rediscovered purported holotype of *gigantea* makes these changes not only undesirable but also uncertain. Stabilising the nomenclature through acceptance of the unequivocally identified neotype of *gigantea* would resolve the confusion and uncertainty regarding this taxon. The name *gigantea* has been associated with Aldabra tortoises for most of the last 100 years and that stability needs to be conserved. Additionally, from a conservation perspective, destabilising the nomenclature of this threatened species (IUCN Red List status Vulnerable) increases its risk through obfuscation of its name, creating potential loophole exceptions in laws and regulations concerning its protection.

**Comments on the proposed conservation of usage of *Archaeopteryx lithographica* von Meyer, 1861 (Aves) by designation of a neotype**  
(Case 3390; see BZN 64: 182–184, 261–262; BZN 65: 314–317)

(1) Zhonghe Zhou

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I write to support Bock & Bühler's proposal to set aside the single feather holotype of *Archaeopteryx lithographica* in the Berlin and München Museums and to conserve the usage of *Archaeopteryx lithographica* von Meyer, 1861 (Aves) by designation of a neotype, BMNH 37001 in the Natural History Museum, London. The major reasons are as follows:

Firstly, hundreds of feathered dinosaurs have been found dating from the late Jurassic to Early Cretaceous of northeastern China in the last 15 years (Zhang et al., 2008), which indicates that presence of feathers can no longer be treated as a diagnostic character for birds, and it is possible that the holotype of *Archaeopteryx lithographica* von Meyer, 1861, represented by a single isolated feather, could be a different taxon from that now represented by several skeletal specimens referred to this species. I believe that stability is best served by conserving the usage of *Archaeopteryx lithographica* von Meyer, 1861 that has been widely known for about one and a half centuries; however, it also seems important and necessary to set aside the holotype feather and designate a neotype for this avian species.

Secondly, BMNH 37001 represents the first reported skeletal specimen of *Archaeopteryx lithographica* (Owen, 1863). This has been much more extensively studied and is possibly more commonly associated with the name than the holotype feather, so it should have the priority to be selected as the neotype specimen despite the fact that several other well preserved skeletons referable to the same species are also known (Mayr et al. 2007).

Finally, I believe that if this proposal is accepted, it will clarify a long standing historical issue in avian taxonomy, and the isolated feather that is currently the holotype of *Archaeopteryx lithographica* will be regarded as a referred specimen of this species.