



Endangered species and endangered knowledge

ALAIN DUBOIS

Reptiles & Amphibiens, UMR 7205 OSEB, Département de Systématique & Evolution, Muséum national d'Histoire naturelle, CP 30, 25 rue Cuvier, 75005 Paris, France. E-mail: adubois@mnhn.fr

The recent discovery of a new species of land iguana in the Galapagos (Tzika *et al.* 2008; Gentile *et al.* 2009; Gentile & Snell 2009) is indeed an exciting novelty, of great interest to all zoologists and evolutionary biologists. This species being apparently represented only by a very small population with a very limited range, it was described as a new taxon following an unusual procedure: no fixed specimen(s) (holotype or syntypes) was deposited in a permanent collection, but a live specimen, in which a transponder had been inserted and which then had been released, was designated as holotype. As analysed in detail by Dubois & Nemésio (2007), because of the unclear wording of Art. 16.4.2 of the *Code*, whether such a nomen is nomenclaturally available is open to question, and pending a clarification of the published Rules of the *Code*, will remain so. In this context, some comments on the paper by Gentile & Smell (2009), from a taxonomic and nomenclatural point of view, are in order. I thank Zhi-Qiang Zhang, Chief Editor of *Zootaxa*, for inviting me to contribute to this discussion.

(1) It is clear that, as discussed by Dubois & Nemésio (2007), *for the time being*, the *Code* does not *clearly* prohibit the description of a species without a holotype, as this is a matter of interpretation of its text. We cannot say to zootaxonomists: “please wait for the next edition of the *Code*”. Science has to go on. When a new *Code* is published, zootaxonomists will have to follow it, but today we must do with the current *Code*. As the latter is ambiguous regarding this question, this is a matter of *editorial policy* of journals. From a general point of view, in this case I still favour the Dubois & Nemésio (2007) approach to this problem, even after considering the particular aspects of this case. Actually, these “particular aspects” are similar to some of the cases already discussed by these authors in mammals and birds, and likely to be found again in subsequent cases that will no doubt appear in the near future. I still think that we need a *general* position on such problems, and in particular that taxonomic journals like *Zootaxa* should send a *strong message* to the community by refusing to publish new taxa without fixed onomatophores (name-bearing types) deposited in permanent collections, for the reasons detailed by Dubois & Nemésio (2007).

(2) This lizard, unnoticed by Darwin and others, has survived until now on this island without turning extinct. I fail to see in the three papers dealing with its discovery any evidence that it is more endangered now than one or two centuries ago. If not, the main factor that might change this situation might be the proper publication of its discovery which, in particular, might attract collectors or ill-motivated people. If only conservation criteria had been taken into account, probably the best course to follow would have been to refrain publishing anything about this species until proper conservation measures had been taken. In this respect, although indispensable, neither the mere inclusion of this species in red lists, nor the fact that the population is included in a national park, would be sufficient. Efficient long-term protection of this population would require permanent financial support for an effective guard of these lizards against potential human interventions, as well as against other potential aggressions, including contact with other iguanas that might interact with them through competition or hybridization. As a matter of fact, hybridization with closely related species may be a very powerful way of leading a species to extinction through *genetic pollution* (Dubois &