Zootaxa 4138 (2): 381–391
http://www.mapress.com/j/zt/
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Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://doi.org/10.11646/zootaxa.4138.2.10
http://zoobank.org/urn:lsid:zoobank.org:pub:683BD945-FE55-4616-B18A-33F05B2FDD30

Rediscovery of the 220-year-old holotype of the Banded Iguana, *Brachylophus fasciatus* (Brongniart, 1800) in the Paris Natural History Museum

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Abstract

The Paris Natural History Museum herpetological collection (MNHN-RA) has seven historical specimens of *Brachylophus* spp. collected late in the 18th and early in the 19th centuries. *Brachylophus fasciatus* was described in 1800 by Brongniart but its type was subsequently considered as lost and never present in MNHN-RA collections. We found that 220 year old holotype among existing collections, registered without any data, and we show that it was donated to MNHN-RA from Brongniart's private collection after his death in 1847. It was registered in the catalogue of 1851 but without any data or reference to its type status. According to the coloration (uncommon midbody saddle-like dorsal banding pattern) and morphometric data given in its original description and in the subsequent examination of the type in 1802 by Daudin and in 1805 by Brongniart we found that lost holotype in the collections. Another MNHN-RA specimen has Horn Islands (Wallis and Futuna) as the collection location but we show that most of the collections given to MNHN-RA by its collector, Louis Arnoux, have mixed localities in the MNHN-RA catalogues. We thus conclude that the locality is wrong and that the species never inhabited those islands located west of Western Samoa and north-east of Fiji.

Key words: *Brachylophus fasciatus*; *Brachylophus bulabula*; lost holotype; MNHN-RA collections; Wallis and Futuna; Tonga; Fiji; Brongniart

Introduction

Pacific Island iguanas are among the most enigmatic reptiles since their geographic distribution — Fiji, Tonga and a recent introduction to Vanuatu — is totally out of the distribution of other iguanids. Iguanas have been known in the South Pacific since the description of *Iguana fasciata* (now *Brachylophus fasciatus*) by Alexandre Brongniart in 1800 (Brongniart 1800). This was one of the first 360 species of reptiles (of the currently more than 10,270 recognized species; Uetz 2016) ever to be described. For 170 years it was thought that only one species was present in the region, until the assessment by Avery and Tanner (1970) that suggested there was undescribed diversity in the group. Currently that oceanic Iguania group consists of two genera with three living and two fossil species known from Fiji and Tonga (Gibbons 1981; Pregill & Worthy 2003; Pregill & Steadman 2004; Keogh *et al.* 2008). One Fijian species, *Brachylophus bulabula* Fisher, Harlow, Edwards & Keogh, 2008 has been recently introduced to Efate Island in Vanuatu. Here we investigated the Paris Natural History Museum reptile and amphibian collections (Muséum national d'Histoire naturelle, Paris; MNHN-RA) and tried to locate the holotype of *Iguana fasciata*. That type was considered as lost until now based on multiple previous attempts to find it. We also checked all holdings of *Brachylophus* spp. in the MNHN-RA collections in Paris among which was one specimen reported in 1851 (Duméril & Duméril 1851) from a location where the species does not otherwise exist, the Horn Islands [also known as Hoorn or Horne Islands, corresponding to Futuna and Alofi islands, Wallis and Futuna] or Wallis Island itself. As all species in this genus are critically endangered, the addition of any historical distributional information and having clearly identified types for each taxon are significant.

Accepted by A. Bauer: 7 Jun. 2016; published: 15 Jul. 2016

Methods

All animals (only seven specimens) used in this study were collected and preserved before 1876. They are all deposited in the MNHN-RA collections and were collected long before the CITES existed. Thus they are not regulated by CITES and local collection permits, although the species is listed on both CITES (Ann. I) and EU Regulation (Ann. A).

We extensively searched in all the available oldest catalogues to understand the precise provenance of the *Brachylophus* specimens in the MNHN-RA collections. The unpublished notes of Brongniart were also reviewed for evidence of the current location of the described type specimen formerly in his collection but these notes lacked any indication of its deposition. The original description and subsequent examination of the type by subsequent authors in the literature allowed us to find several precise diagnostic characters which could ensure proper identification of Brongniart's holotype if it was still present in MNHN-RA collections. We also checked for the holotype in other important French natural history museum collections. Particular attention was given to a specimen reported from Wallis Island or the Horn Islands, localities from which the genus has otherwise never been reported. The three extant *Brachylophus* species have different distributions. Thus, expedition routes were checked for all the deposited specimens to see if their species identification is in accordance with their reported origin relative to the travel route of the expedition which allowed their collection, as indicated by their collector. This was an indirect way to double check accuracy of catalogue information.

Each of the seven MNHN-RA specimens (see Table 2 below) was measured (snout-vent length and tail length), sexed, identified to species level, and its coloration characteristics examined to see if it fits Brongniart's holotype as indicated in the original (Brongniart 1800) and subsequent descriptions (Daudin 1802; Brongniart 1805). Species level identification of each specimen was possible through several characteristics useful for a confident discrimination among *Brachylophus fasciatus*, *B. bulabula*, and *B. vitiensis* according to Keogh *et al.* (2008).

Results and discussion

The original description by Alexandre Brongniart (1800). Named "Iguane à bandes", Banded iguana, Brongniart (1800) noted in the description of this lizard that the only specimen he had on hand (thus, the holotype by monotypy) had a shorter second lighter band on its back that did not extend entirely to the belly (« la seconde [bande dorsale] plus courte ») on either side, thus having the appearance of a saddle (Fig. 1). The size of that unique specimen was, according to the original text, about 15 cm snout-vent length and a tail length three times longer than body length. These mensural data and this uncommon banding pattern allowed us to check the seven MNHN-RA historic specimens (18th and 19th century specimens only) and to determine if a specimen with such size and banding exists among them.

The holotype of Brongniart was collected by Claude Gaspard Antoine Riche during the travel around the world of Antoine Reymond Joseph de Bruni d'Entrecasteaux from 1791 to 1794 in the search of La Pérouse. Riche died very young (35 years old) and Georges Cuvier himself wrote a laudatory biography of that exceptional man (Cuvier 1797). The voyage was made by two vessels, '*La Recherche*' and '*L'Espérance*', the latter with Claude Riche on board as naturalist. That expedition did not visit Fiji but only 'Tonga-Tabou' (Tongatapu, Kingdom of Tonga) from 23 March 1793 to 10 April 1793 before continuing to New Caledonia. The drawing upon which the plate in the original description of 1800 (Fig. 1A; Planche VI in the original description placed between pages 92–93 but not numbered) was made by Maréchal, certainly based on the preserved type specimen deposited in the private collection of Brongniart at that time, as reported by Daudin (1802) (see below). On that plate is written for Fig. 1: « 2/3 de la grandeur naturelle » = 2/3rd of the original size. Riche certainly only collected one unique specimen and he did not make a written description of the living specimen (since all descriptions refer to a blue coloration which corresponds to the green life colour faded into blue once the lizard was preserved in alcohol from several months). That first description dated 1800 is valid and we agree with Brygoo (1989) that the species description should be attributed to Brongniart (1800) and not to Brongniart (1805).

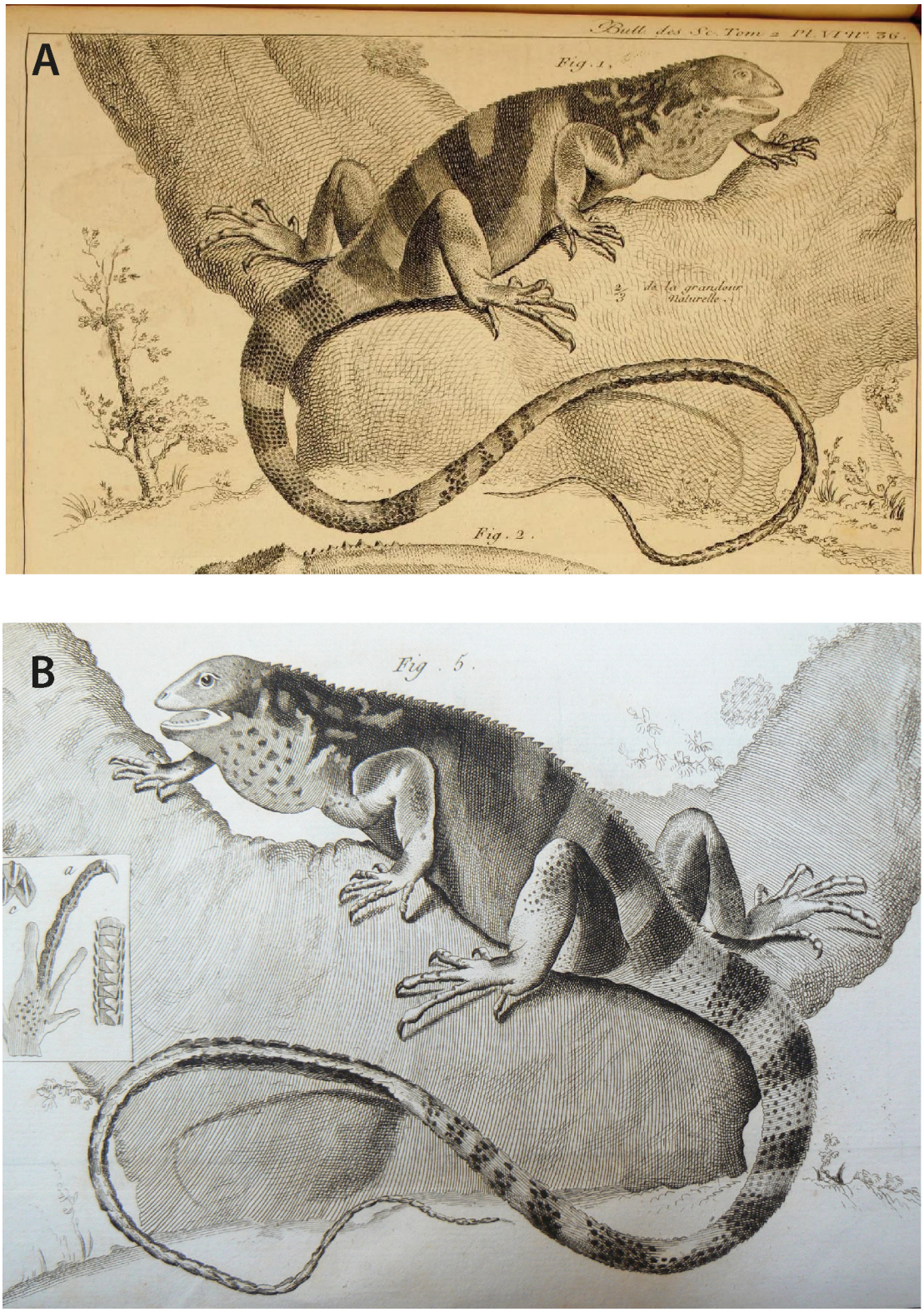


FIGURE 1. Holotype of *Iguana fasciata* as illustrated in (A) Brongniart (1800) and (B) Brongniart (1805). The saddle-like second mid-dorsal lighter band is easily seen. Spotting on neck and white throat are also diagnostic of *B. fasciatus* in those images.

***Brachylophus fasciatus* (Brongniart, 1800) and subsequent authors.** Shortly after the original description, Daudin (1802) removed the species from *Iguana* and placed it in *Agama*. On page 354, he wrote « Sous la base de chaque cuisse il y a une rangée de six grains poreux. » = 6 pores under the base of each thigh. Total length about 2

feet. Later he noted that « le cou est moucheté en dessus par environ vingt-quatre petites taches arrondies, d'un bleu pâle ; et il a en dessous d'autres taches plus petites d'un bleu foncé » = the neck is spotted above by about 24 small rounded pale blue spots; it has other dark blue smaller spots below. Daudin (1802) also noted « quatre bandes d'un bleu foible [= faible], transversales, plus larges sur les flancs, et dont la seconde est plus courte » (= four transverse bands of light blue, larger on the flanks and among which the second is shorter). Like Brongniart (1800; 1805), Daudin (1802) also did not specify the side of the body on which the dorsal band is shorter, thus suggesting it is shorter on both sides and saddle-like. He also indicated (page 355) the location of the unique specimen he examined: « Cet agame fait partie de la collection d'histoire naturelle de mon ami Alexandre Brongniart, qui a bien voulu me le communiquer » = This agama is part of the private natural history collection of my friend Alexandre Brongniart who was so kind as to loan it to me. The examination made by Daudin corresponds without any doubt to the type specimen previously described by Brongniart two years earlier. The holotype is distinguishable by its second lighter midbody band which is interrupted on both sides rather than continuous onto the belly like the other bands. This character is very uncommon in *B. fasciatus*.

Brongniart (1805) later noted the « seconde bande du corps plus courte » = second body band shorter. He indicated the size of the holotype as « environ 7 décimètres de long du museau à l'extrémité de la queue » = about 7 decimeters (70 cm) long from snout to tail end, and also « queue annelée mais brune à son extrémité » = tail annulated but brown at its end, « La queue est près de trois fois aussi longue que le corps » = Tail is about three times as long as the body. In that second text, published five years after the original description, Brongniart (1805) again noted separately that the second body dorsal band does not reach the belly or that second lighter body band is shorter. Note also that although both plates of Brongniart (1800; 1805) were made by Maréchal and represent the same specimen, they are not identical (Fig. 1). At that time it was not really expensive to produce different engravings for plates in publications and authors often used several distinct plates in different issues of their publications to illustrate the same specimen (R. Bour, pers. comm.). The particular second dorsal saddle-like lighter band not reaching the belly is clearly visible on the left and right side of the animal in both plates illustrating Brongniart's holotype (1800; 1805) [see Fig. 1].

Duméril and Bibron (1837: 226–229) noted that in *Brachylophus fasciatus* the top of some femoral scales is pierced by a pore. They counted 8–9 pores in males. Measurements of only one specimen are indicated as: 74″, total length. 12″, body length. 4″, head length. 54″, tail length. Those measurements contain a mistake since body length + head length + tail length should be equal to total length. Thus 12+4+54=70 and not 74 cm. If we consider total length (74 cm), tail length (54 cm) and body length [without head] (12 cm) as correct, and that the mistake was made only in head length measurement (8 cm is right and not 4 cm as indicated), those measurements correspond to MNHN-RA 2372 and not to MNHN-RA 6812 (see Table 3). The former was collected by Quoy and Gaimard between 1826 and 1829 thus after the description of *Iguana fasciata* and the latter specimen has no data in MNHN-RA catalogues. Additionally MNHN-RA 2372 as measured by us is 19.2 cm SVL and represents the largest known *Brachylophus fasciatus* (see also Gibbons, 1981; Pregill & Dye 1989). The second and third largest specimens known are also from Tonga and are 18.2 and 17.9 cm, this is out of 70 *B. fasciatus* measured from Fiji (Fisher, unpub. data).

Duméril and Bibron (1837) clearly examined several specimens but did not note that one of them had an incomplete mid-dorsal lighter band, as indicated several times by Brongniart (1800; 1805) for his holotype specimen. Thus, they certainly did not examine the holotype of Brongniart at that time. Duméril and Bibron (1837: 229) noted Tongatapu as the source of Quoy and Gaimard material, but incorrectly indicated the overall distribution for the species as "Indes orientales, et dans quelques îles de la Nouvelle-Guinée" (East Indies and some islands of New Guinea).

In the 1851 catalogue of A.M.C. Duméril and A.H.A. Duméril, seven specimens are listed in the MNHN-RA collection (see Table 1). These authors also reported a specimen of *Brachylophus fasciatus* from: « Ile Wallis (arch. Oua-Horn, Océanie) : M. Arnoux » [the main island, Wallis is also called 'Uvea, certainly indicated by "Oua"] and another collected by "Leguillou" (original spelling is Le Guillou) with unknown origin but from "Oceania"; they also noted the existence of three specimens collected by Quoy and Gaimard from Tongatabou (arch. des Amis [Friendly Islands] or Tonga, Oceania), another specimen from Arnoux also from Tonga and one specimen without any data from Oceania (MNHN-RA 6812). This is the only specimen without collection date whereas all others were collected after Brongniart's original description according to their catalogue data. This mysterious specimen, if in agreement with Brongniart's type specimen, could originate from the private collection of Brongniart.

MNHN-RA 6812 was most likely still in the private collection of A. Brongniart and not available to Duméril and Bibron in 1837 (Duméril & Bibron 1837). We suspect that the whole or part of the private herpetological collection of Brongniart (1770–1847) arrived at MNHN-RA only after his death in 1847 and before 1851 since our suspected holotype was included in the 1851 MNHN-RA catalogue list (Duméril & Duméril 1851). The holotype of another species described by Brongniart in 1800 in the same publication, *Chamaeleo bifidus* Brongniart, 1800 [*Furcifer bifidus*] is also present in MNHN-RA collections, thus supporting the assumption that Brongniart's types were given to MNHN-RA collections.

TABLE 1. The seven MNHN-RA specimens reported in Duméril and Duméril (1851: 64).

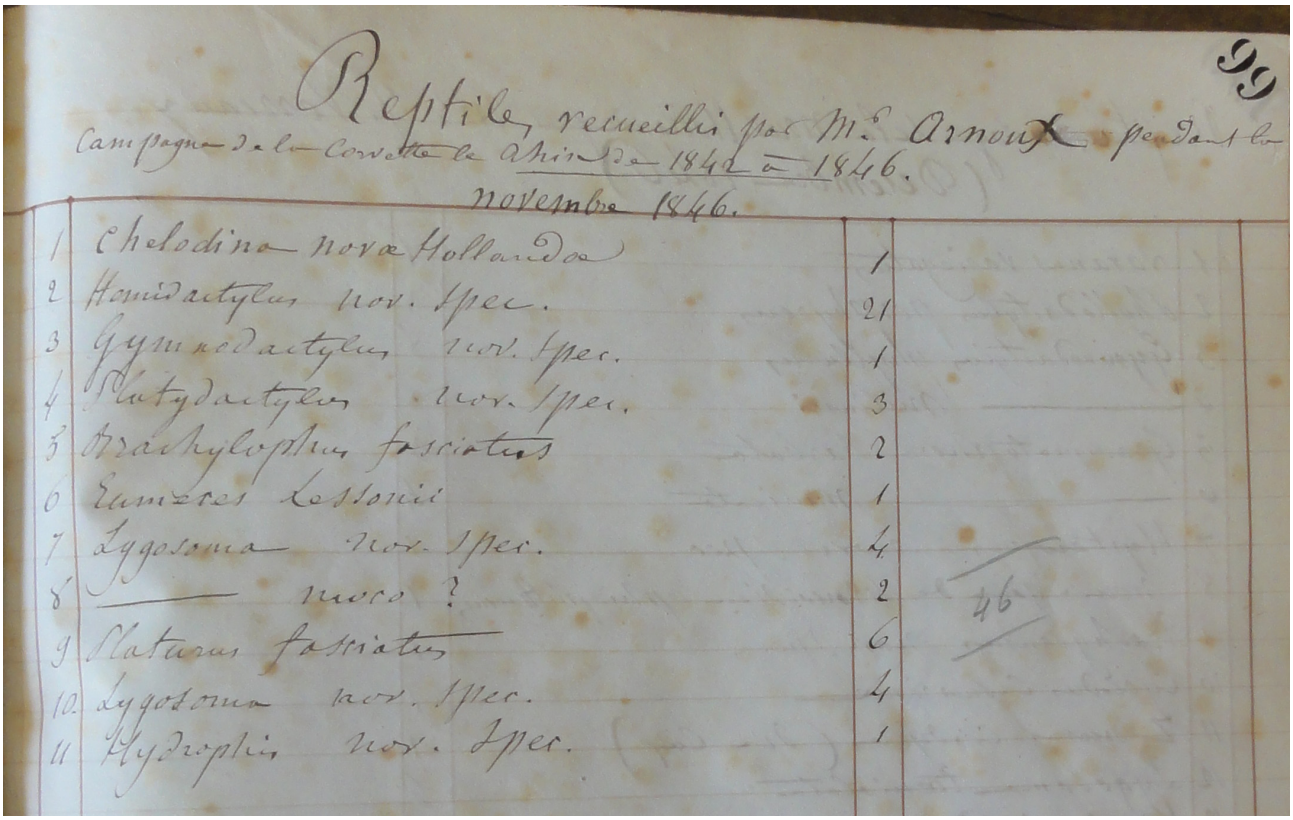
Collector	Locality	Number
Arnoux	Wallis (Oua-Horn)	1
Le Guillou	Oceania	1
Quoy & Gaimard	Tongatabou	2 (ad. and subad.)
Quoy & Gaimard	Tongatabou	1
Arnoux	Tongatabou	1
Unknown	Oceania	1

An unpublished hand-written catalogue in the MNHN-RA Amphibian and Reptile collection begun ca. 1864 reveals (on p. 122) that six specimens present today (see below) were also present in 1864 (except the specimen from Wallis; Table 1) and also that MNHN-RA 5283 from Fiji, collected by Henri Filhol, arrived later, in 1876, and was registered on a subsequent page. Filhol was a member of one of the expeditions sent to observe the transit of Venus in 1874–1875. He travelled to Campbell Island and New Zealand, passing through Fiji where he collected several reptiles. Among them was *Labionaris filholi* Brocchi, 1876, an endemic elapid species named in his honour, but which had been previously described as *Ogmodon vitianus* Peters, 1864 and thus has to be considered as a synonym (see Zug & Ineich 1993). His MNHN-RA *Brachylophus* specimen can be identified as a typical *B. bulabula* endemic to Fiji (see Table 2 below).

As in the previous 1851 catalogue (see above; Duméril & Duméril 1851), there is no collecting locality or collector noted in the 1864 catalogue for MNHN-RA 6812. The specimen indicated as from Wallis arrived in MNHN-RA collections before 1851 and is listed in both catalogues as having arrived in November 1846. In his type catalogue of the lizards in MNHN-RA collections, Guibé (1954) did not consider *Brachylophus fasciatus* or *Iguana fasciata.* This indicated that he regarded the type as never having been present in the MNHN-RA collections. Gibbons (1981: 157) also noted earlier that "Since there is no record of this specimen in Guibé's (1954) list of lizard types in the Paris Museum, it appears to have been lost, or to have remained in Brongniart's private collection". Later in the catalogue of the iguanid type specimens of MNHN-RA collections, Brygoo (1989) indicated that the specimen figured on Pl. 6, fig. 1 of Brongniart (1800) is the holotype but that it should be considered lost since there is no indication that a specimen was collected by Riche or given by Brongniart to the MNHN-RA collections. Brygoo (1989: 43) also agreed that the genus *Brachylophus* should be attributed to Cuvier *in* Guérin-Méneville (1829). Both Etheridge (1982) and Hollingsworth (2004) in their checklists of iguanids indicated that no type was designated by Brongniart (1800) for *fasciatus* and both also list the Horn Islands (Wallis and Futuna) record based on Duméril and Duméril (1851).

Specimens present in MNHN-RA collections on April 2015. As in the 1851 catalogue of Duméril and Duméril, only seven specimens of *Brachylophus* were present in the MNHN-RA collections on April 2015. However, there are some differences in specimen composition: three specimens from Quoy and Gaimard and one specimen from Le Guillou in the 1851 catalogue versus two specimens from Quoy and Gaimard and two specimens from Le Guillou in collections and catalogues on April 2015. That problem cannot be solved and there is no way to know which is the correct composition of the original collection. Note also that the seventh specimen now present in MNHN-RA collections (MNHN-RA 5283) was collected on Fiji by Filhol but was only acquired in 1876 as indicated above. Thus, there is clearly one specimen that was lost between 1851 (seven specimens *without* that of Filhol) and today (seven specimens *with* that of Filhol) and that specimen is the one reported from the Horn Islands above (Table 1). This one is especially significant as it represents the only record for the genus from that island chain (Wallis and Futuna Islands).

A first step in our investigation was to check if its collector, Arnoux, really visited Wallis and Futuna Islands. Louis Arnoux (1814–1867) was a marine physician and thus participated on several expeditions (Anonymous no date; Serra-Tosio 1996). From 1842 to 1846 he travelled as a young chief surgeon (less than 28 years old) on the circumnavigatory voyage of the corvette '*Le Rhin*'. That ship had to take over the ship '*L'Allier*' which was stationed in New Zealand. The logs of the corvette captain, Auguste Bérard, indicate that both Wallis and Futuna islands were visited between June and July 1845 just before traveling to New Caledonia in September and October 1845. Tonga was visited from 29 May to 14 June 1845, chiefly Tongatapu from 7 to 14 June. Wallis Island (sometimes called Uvea Island) was visited from 18 June to 4 July 1845 with a short trip to Futuna Island (the later together with Alofi Island called Horn (or Horne) Islands) located about 135 miles southwest of Wallis. Another MNHN-RA hand-written catalogue dated 1839–1864 (page 99) indicated that Arnoux donated two *Brachylophus* specimens in November 1846 (Fig. 2). One of these, that reported from the Horn Islands, must now be considered lost but the second (MNHN-RA 6809) clearly originated from Tonga (according to catalogue indications) and is referable to *B. fasciatus* (see Table 2).


Reptiles recueillis par Mr Arnoux pendant la Campagne de la Corvette le Rhin de 1842 à 1846.
novembre 1846.

1	Chelodina nova Hollandiae	1
2	Homidactylus nov. spec.	21
3	Gymnodactylus nov. spec.	1
4	Platydactylus nov. spec.	3
5	Brachylophus fasciatus	2
6	Eumeces Lessonii	1
7	Lygosoma nov. spec.	4
8	——— nova ?	2
9	Natrix fasciatus	6
10	Lygosoma nov. spec.	4
11	Hydroplis nov. spec.	1

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FIGURE 2. Hand-written 1839–1864 MNHN-RA catalogue indicating the two *Brachylophus* specimens donated by Arnoux in November 1846. No collection locality is provided.

The donations by Louis Arnoux to the MNHN-RA collections are peculiar. They contain numerous specimens from Oceania with wrong localities and several nomenclatural problems have arisen from those mistakes. One of the most famous is *Gymnodactylus arnouxii* Duméril, 1851, collected by Arnoux and erroneously indicated as from New Zealand (where the species is absent), and which was considered as invalid despite its temporal priority over *Nactus pelagicus* (Girard, 1857), the valid binomen (ICZN 1991). A recent synthesis on Marquesas Islands specimens (Ineich in prep.) will show New Zealand endemic species indicated as from Marquesas Islands in Arnoux's MNHN-RA collections. Most, if not all, of the specimens given by Arnoux to MNHN-RA have mixed localities. So even if the '*Le Rhin*' expedition went through Wallis and Futuna, there is a very high probability, given that the species has never again been reported from this island group, that the specimen reported as coming from there in Arnoux' collection is in fact a specimen of *B. fasciatus* from Tonga.

TABLE 2. Details of the seven specimens of *Brachylophus* spp. in the MNHN-RA collections on April 2015 (note that actual tag numbers were not attributed chronologically). Old MNHN-RA catalogue tags (ca. 1864) of the seven available specimens were 1735–1740 and 1736[a]. Sex: F for female and M for male. Species: Bf for *B. fasciatus* and Bb for *B. bulabula*.

MNHN-RA present tag	Locality	Sex	Species	Collector / date	Old catalogue number	Dum. Bibr. ca. 1864 catal.
2371	Not given	F	Bb	Second exped. Dumont d'Urville (1837–1840) on *La Zélée*, coll. Le Guillou	1736	Yes
2372	Tongatapu	F?	Bf	First expedition Dumont d'Urville (1826–1829) on *L'Astrolabe* – coll. Quoy and Gaimard	1739	Yes Specimen measured in Duméril & Bibron, 1837 page 229
5283	Fiji	M	Bb	Filhol (around 1875)	1736[a]	No
6809	Tongatapu	M	Bf	Arnoux (1845)	1737	Yes
6811	No	F	Bb	Second exped. Dumont d'Urville on *La Zélée* (1837–1840), coll. Le Guillou	1735	Yes
6812	No	M	Bf	No	1738	Yes "Origin ?"
6813	Tongatapu	M	Bf	First exp. Dumont d'Urville on *L'Astrolabe* (1826–1829), coll. Quoy and Gaimard	1740	Yes

MNHN-RA 2372 and 6813 were collected during the first voyage of the ship *L'Astrolabe* (1826–1829) under the command of Jules Sébastien Dumont d'Urville with Jean René Constant Quoy as naturalist and physician and Joseph Paul Gaimard as naturalist and chief surgeon. That expedition visited both Tonga and Fiji but the two *Brachylophus* specimens they deposited in the MNHN-RA collections clearly indicate "Tongatabou" (Tongatapu) as the collection location. Both are typical *Brachylophus fasciatus*. The second expedition of Dumont d'Urville (1837–1840) was made with two ships, *La Zélée* (under command of Charles Hector Jacquinot with Elie Jean François Le Guillou as naturalist (entomologist) and chief surgeon) and *L'Astrolabe* (under command of Jules Sébastien Dumont d'Urville with Jacques Bernard Hombron as naturalist and chief surgeon). That second expedition visited Samoa (Upolu [Apia]), 'Vavao' (Vava'u Islands Group) and 'Hapai' (Ha'apai Group) in the north of Tonga, and Fiji for a long time, particularly a Fijian island called Pao Island. Pao corresponds to the current Bau Island near the large island of Viti Levu where no *Brachylophus* population occurs but the nearby island of Viwa (also visited by the expedition) is still occupied by a population of *B. bulabula*. Thus MNHN-RA 2371 and MNHN-RA 6811, specimens from that expedition, could have originated from Viwa Island in Fiji. Both were collected by Le Guillou during the second voyage of Dumont d'Urville but are without reported collection locality. However, both Le Guillou specimens are females of *B. bulabula* and thus clearly originated from Fiji and not Tonga.

Is the holotype of *Brachylophus fasciatus* (Brongniart, 1800) in MNHN-RA collections? MNHN-RA 6812 (the only specimen without data) is the most likely candidate to be the holotype of Brongniart (1800). It is clear that Duméril and Bibron (1837) did not have the specimen at hand and that later (Duméril & Duméril 1851) they did not know that this specimen was the holotype when writing their catalogue. The lizard arrived in the MNHN-RA collections after Brongniart's death in 1847 without any data, not even Oceania. It was first reported in the collections when included in the 1851 catalogue (Duméril & Duméril 1851). Size (70 mm total length; see Table 3) and, most importantly, the atypical dorsal pattern with the interrupted second lighter saddle-like dorsal band (Figs. 3–4) are in total agreement with the descriptions of Brongniart (1800; 1805) and Daudin (1802). MNHN-RA 6812 is a typical specimen of *Brachylophus fasciatus* and, thus, it appears to be the one collected by Riche in Tongatapu in 1793 and described and figured in Brongniart (1800; 1805). The journey made by that expedition shows without doubt that the type locality of *Brachylophus fasciatus* has to be located in Tonga, on Tongatapu Island as indicated in the original description and not somewhere in Fiji, which was not visited by the expedition. Its coloration pattern today (lighter head spots) does not totally fit with the plates of Brongniart (1800; 1805), but differences are due to

fading after more than 220 years in preservative, with some lighter spots disappearing (Figs. 1, 5), but also to the engraver who probably did not consider the position and number of the spots as important. We also checked the engraving with the opposite right side of the type specimen in the case engraving was mirrored but this seems not to be the case and differences were even greater. The abnormal mid-dorsal light band undoubtedly confirms MNHN-RA 6812 as the holotype described by Brongniart (1800). The specimen has 102 spines on its dorsal crest from above cloaca to the neck, thus being a typical *B. fasciatus*.

FIGURE 3. Left lateral view of MNHN-RA 6812 showing its saddle-like dorsal band and its complete accordance with the specimen illustrated in Fig. 1 above.

FIGURE 4. Mid-dorsal photograph of MNHN-RA 6812 illustrating saddle-like second dorsal band instead of a complete band. Large nuchal white spots also present in this photo.

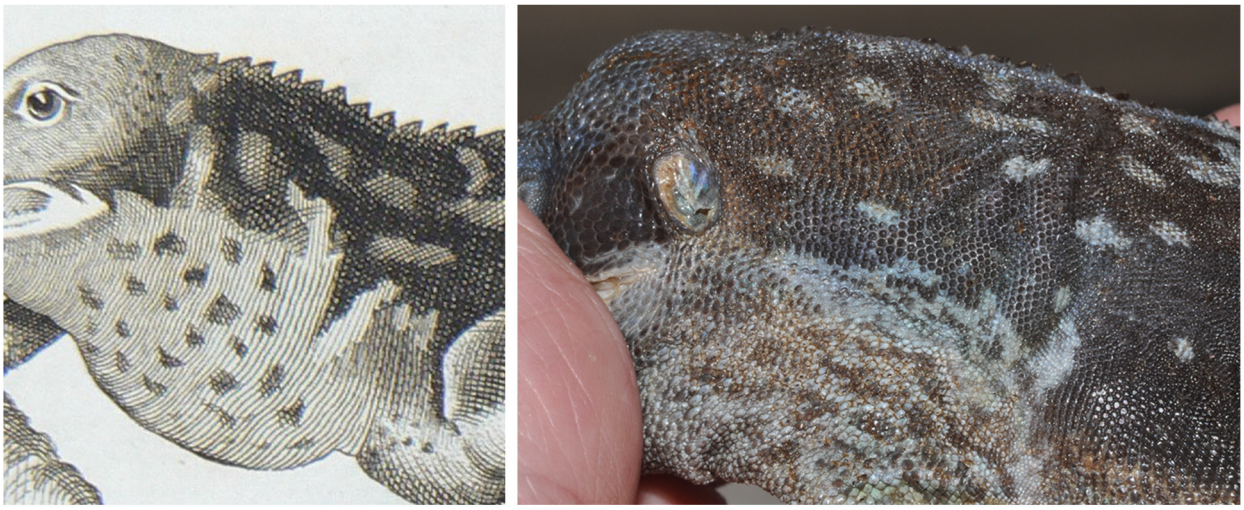

FIGURE 5. Left side of head and neck of the specimen illustrated in Brongniart (1805) (left) and MNHN-RA 6812 (right) showing bicolored head, with white throat containing grey spots. Also nuchal white spotting is typical of *Brachylophus fasciatus* and obvious in the illustration of the holotype. Note, however, that engraver has not fully respected the disposition and number of the lateral dark and light head marks.

TABLE 3. Snout-vent length (SVL), tail length (TL) and total length of the seven available MNHN-RA specimens. 'Pattern fitting illustration' indicated if the colour pattern of the specimen does fit that of the type illustrated in Brongniart (1800; 1805). Species: Bf for *B. fasciatus* and Bb for *B. bulabula*.

MNHN-RA	Species	SVL	TL	Total length	Pattern fitting illustration
2371	Bb	17.3	6.5+(reg.)	/	No
2372	Bf	19.2	53.5	72.7	No
5283	Bb	14.5	42.5	67	No
6809	Bf	16	51.9	67.9	No
6811	Bb	15.7	33.5	49.2	No
6812	Bf	17	53.8	70.8	More-or-less
6813	Bf	16.2	48.4	64.6	No

Conclusion

Even if the lighter spot marks on the head of the holotype figured in Brongniart (1800, 1805) do not fully correspond to those observed on MNHN-RA 6812 after more than 220 years in preservative, its size, acquisition date in the MNHN-RA collections and presence of the mid-dorsal atypical light saddle-like band pattern indicate that MNHN-RA 6812 is the holotype by monotypy of *Iguana fasciata* Brongniart, 1800, a specimen considered as lost for over 200 years. Its collection locality is Tongatapu. The lost specimen reported from Horn Islands (Wallis and Futuna Islands) and collected by Louis Arnoux clearly represents an error in locality, even if the expedition visited those islands for more than two weeks. A recent field trip by one of us (II) to Wallis and Futuna Islands confirmed the absence of the species which was totally unknown by all local inhabitants questioned (see also Gill 1985). Thus, even if the specimen is lost or was destroyed, we consider the report of *Brachylophus* from the Horn Islands based on Arnoux's specimen as an error and this should be removed from future discussions of their natural range.

Our results show that museums have not given up all their secrets. They contain critical data for coming generations and have to be considered with care. Even if younger generations of zoologists refer to the web to obtain some of their data, direct examination of older specimens and their associated documentation often allows a more precise view of species definitions (Ceriaco & Bour 2012; Cardwell *et al.* 2013; Troncoso-Palacios & Garin

2013). Now that records of most zoological collections are open-access on the web, the accuracy of such information must be verified before acceptance. Among the seven *Brachylophus* of MNHN-RA collections, one was an unidentified, very important historical holotype and another had an incorrect locality, which was repeated in publications for a long time. Our results also show that data attached to museum specimens have to be critically considered as they may also be incorrect, sometimes impacting conservation decisions.

Acknowledgments

I. Ineich wishes to thank Atoloto Malau (Service de l'Environnement of Wallis and Futuna, Mata' Utu, Wallis Island, Wallis and Futuna) for his useful help during field work undertaken on Wallis and Futuna Islands. Thanks also to Aaron Bauer for his support with this paper. R. Fisher thanks the International Iguana Foundation for continued financial support. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

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