

Investigation into the identity of the taxon *Callipara (Festilyria) festiva*, with the description of two new species

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ABSTRACT The history of the taxon *Callipara (Festilyria) festiva* is carefully reviewed, and new light is shed on the existence of other members of this ‘group’, described hereunder as *Callipara casaana* sp. nov., and *Callipara victoriae* sp. nov.

KEYWORDS Masirah Island, Oman, Socotra Island, Somalia, Yemen, *Callipara*, *Festilyria*, *C. festiva*, *C. deceptrix*, *C. dobsonae*, *C. lizae*, *C. casaana*, *C. victoriae*

INTRODUCTION

The first author has been fortunate to spend a considerable amount of time studying shells on Masirah Island, and elsewhere in Oman. A recent connection with him and the second author has resulted in an in-depth investigation into the mysterious journey taken by the species *Voluta festiva* from its inception in 1811 until the present.

What is firstly clear is the consistent difference noticed between the large knobbly red protoconch of the ‘Somali *festiva*’, and the smaller, narrower, pale protoconch of the ‘Masirah *festiva*’. The second author is convinced, secondly, of the logic proposed by the first author, *i.e.* that the syntype specimen of Lamarck’s shell (Plate 1 figure 1), held in Paris, is in fact virtually certainly a specimen from around Masirah Island, Oman.

A chronology of this initially extremely rare, beautiful and elusive species is fascinating, as elucidated below:

Named by Lamarck as a new species in 1811, on page 73 of “Annales du Museum d’Histoire Naturelle, 1811, the description was apparently

based on a single shell, suggested tentatively as being from the waters around South America, whose size, shape and patterning corresponds well to the shells that are found today in Omani waters. The original Latin description can be summarized as:

“40. The decorated Volute. *Voluta festiva*. Volute with central swelling, spindle-shaped, ribbed, flesh-coloured, with golden blotches; small light brown wavy vertical lines, scattered, and banded. Columella has three folds.”

There then follows a further description in French, summarized as follows:

“Museum # 43. Habitat... probably the seas of South America. A very beautiful and very rare shell, which is similar in its description to *Voluta magellanica* Lamarck, 1811, but which is very distinct and more ornate. It is plump, spindle shaped, with longitudinal ribs well defined on the teleoconch, less strongly present in the lower half of the last whorl. On a flesh-coloured background, clouded with a few fawn-brown spots, it has vertical red-brown wavy lines, arranged in transverse zones, and spots or droplets of the same colour, spread apart, arranged in similarly transverse cords. The base

of its columella is adorned with three tight folds, the top-most of which is the least well-defined. Length, 71 millimetres.”

Note that the referenced species *Voluta magellanica* Lamarck, 1811 alluded to above is now represented as *Adelomelon ancilla* (Lightfoot, 1786).

In his initial personal notes, the first author makes the following telling comment, and proposal: “My reading of this is that the description refers to the Arabian shells that we find in Oman, and does not reflect the strong orange-red colouring found on the teleoconch of the Somali collected shells, nor their much larger size. I would propose a *nomen novum* of *Callipara casaana* (from the Somali word for “red”) for the big, and very distinct, east African shells, and that the name *Callipara festiva* is retained for those shells exhibiting the characteristics described by Lamarck in 1811, as found off the coastlines of Masirah Island and south eastern Arabia. A summary of ~200+ *Callipara festiva* beached shells found and measured by ourselves from various sites in Oman over several years reveals the following statistics, excluding obvious juveniles less than 20 mm.”

Other historical findings indicate that a maximum size closer to 135 mm or even more may be achievable, though none have been recorded in recent years in Oman.

Minimum size, 42.1 mm; Maximum size 126.6 mm; Mean (average) size 78.9 mm.

G.B. Sowerby II, in his 1847 *Thesaurus Conchyliorum* Vol. 1, pp 218-219 and Plate 52, illustrates what is purported to be Lamarck’s shell, still unique, noting that the drawing is from ‘an earlier time’ (Figure 1).

Maxwell Smith, in 1942, covers some earlier references, giving shell size as 100 mm - 125 mm, found from south-east Africa, Natal coast (Sowerby) and states “said to be one of the rarest volutes.”

In 1954, Pilsbury & Olssen introduce the Genus ‘*Festi-lyria*,’ specifically for the shells known as *festiva*.

In 1959, K. H. Barnard, in the *Annals of the SA Museum*, # 45, states the locality data by Sowerby 1897 ‘Natal coast’ is probably incorrect.

In 1968, Cliff Weaver illustrates the type specimen of *festiva* in black and white, in his description of *Festilyria duponti*.

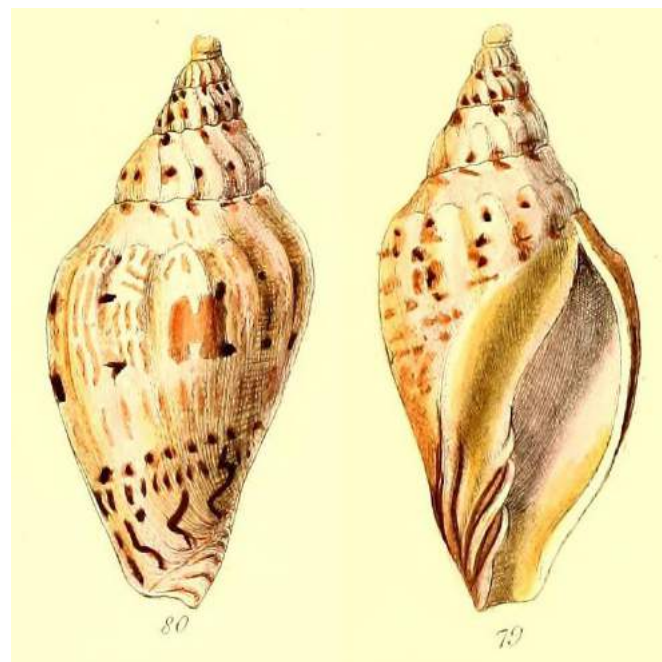


Figure 1. Composite extract of the 71 mm shell from Plate 52, *Thesaurus conchyliorum* Volume 1, 1847, G.B. Sowerby II.

Peter Dance in his famous 1969 book *Rare Shells* (50), illustrates a broad, knobbly shell from the Hugh Cuming collection, (BMNH), at 137 mm x 80 mm, from “S. E. Africa”. His

comments in 1969 are “most known examples, perhaps a dozen or so, are more or less worn and faded”, and further on: “only 3 or 4 are known to have been trawled during the present century”. His may be the first colour photo of the presumed new species described in this paper.

In 1970, Don Aiken illustrated *festiva* (Figure 2) from “a painting by G. L. Wilkins, (kind permission Mrs. Helen Boswell)”, in his book co-authored with friend Ken Fuller. Don’s lovely ink-drawn image is almost certainly a copy of Maxwell Smith’s 1942 illustration of *festiva*.

Weaver and du Pont in 1970 maintain the aura of mystery surrounding the species, firstly by stating that the type locality is restricted to Al Masirah Island, based on a specimen given to Donald Bosch in 1960 from there, and secondly by saying it is only known from the type locality. Their colour image of the 135 mm x 68 mm shell is of a very dead specimen judging by the lack of dorsal pattern, and may very well be the specimen illustrated by Smith and Aiken.

In HSN Vol XXI No 12 of December 1973, a snippet by Elmer G. Leehman with an interesting black & white image is presented of a “*Voluta festiva*” found off Aden, South Arabia, trawled from “more than 200 fathoms”. This equates to a depth of 365 metres, or 1,200 ft! The portrayed shell, with some slight, typical damage low on the lip, looks to have been polished, as it became known later on that the species has a matt looking dorsum. Thankfully, the shell is photographed next to a ‘foot rule’, showing a size of around 178 mm, and not the 108 mm as stated. This is a classic representation of the “intermediate” (*‘deceptrix’*) found between Somalia and Oman.

In a further addition to this “*festiva* pot of mystery” (and confusion), a fascinating article appeared in HSN Vol XXVI No12 of December 1978, entitled “A Breakthrough in Volutes” by Cliff Weaver, wherein he firstly refers to dead shells found in the Arabian Peninsula...”all presumed to represent females”, and secondly, illustrates a very unusual specimen that he calls *festiva*, dived live by Roy Richardson in shallow (10 m) water off Masirah Island, which we can, for the time being, call “Richardson’s volute”.... He compares this utterly different shell with a “Bledsoe” shell he calls a ‘typical’ female *festiva*, and tellingly, says “the new shell differs strikingly from Bledsoe’s”. The ‘Bledsoe volute’ from the Gulf of Aden at 50-60 metres is a sure candidate for the next “*festiva* moment”, when Palazzi, in 1981, describes *Festilyria festiva deceptrix*. This is a much narrower, smaller (than a lot of the Somali shells), more ribbed shell, which he separates from the increasingly better known, very large, knobby Somali specimens.



Figure 2. Ink drawing by Don Aiken, 1970

In HSN of November 1979, South African W.E.J. Walles proposes using specific shell ratios as a potential means to separate species, and addresses Weaver's contention of dimorphism by potentially showing 'Richardson's volute' as a different shell completely.

In 1980, a really valuable, and pertinent (to this paper), article appeared in HSN Vol XXVII No 8 of August 1980. Herein, Sadao Kosuge and Koji Nomoto present a contrary opinion to the theory of Cliff Weaver, and put forward a convincing argument that shells of *festiva*, male and female, are in fact similar. This is based on an extremely rare opportunity to actually dissect three animals, and they tactfully propose that "Weaver's suggestion of sexual dimorphism in *festiva* would seem to require further investigation".



Figure 3. 14.1 mm juvenile *C. festiva* collected in Dhofar Governorate, Oman. Coll. A.R.R. Childs #100931

Aiken and Fuller produce a second edition of their *Volutes of Africa* (1986), and add this interesting comment: "Distribution: Originally found off the Arabian Peninsula in 1960 but much more recently collected off the coast of Mozambique and on the beach."

In *Rossiniana* #37 of October 1987, a valuable piece of information surfaces. Allan Limpus produces a well-researched chronology of this species, pointing out the continuing confusion regarding this elusive beauty at the time. He illustrates a stunning specimen of the so-called *deceptrix*, true to form... narrow, ribbed, medium size, and mentions Palazzi's comment "that more research has to be done to ascertain with sufficient precision the limits of variability of the single species". As Limpus indicates, his 123 mm shell had been live trawled in 125 metres of water, south-west of Socotra Island off south Yemen, and then points out, alluding to the then crazy rarity of Somali shells... "I do not have a *festiva* in my collection for comparison..." The above solid data is important for the considerations further on in this paper. It is here noted that the distance between the area south-west of Socotra and Masirah is around 1,200 km.

An exact copy of the above article is to be found in *The Strandloper*, Bulletin of The Conchological Society of Southern Africa, number 221, page 8, of July/September 1987, illustrating this beautiful 123mm shell.

In *World Shells* 1992, the third author presents lovely images of *festiva*, covering a superb very large knobby shell, a stunning predominantly red coloured juvenile and a '*deceptrix*', the narrower form that he considers "a mere synonym without a taxonomic value."

Some interesting information is found in Poppe and Goto's 1992 *VOLUTES*. Firstly, they state the range as being from Adula, Somalia, to Al Masirah, Oman. Secondly, they state that the red colouration of early whorls separates *festiva* from *C. africana*, and thirdly, they confirm a valuable, rare piece of information regarding the animal, which Kosuge & Nomoto described as "pale red with round and oval black-brown



Figure 4. A selection of typical colour patterns of *C. festiva* from Masirah island, Oman, 43.1 mm – 119.4 mm. Coll. A.R.R. Childs

spots”. This is utterly different from animal colours described for ‘Richardson’s volute’, described here as *C. victoriae* *sp. nov.* See description herein below for animal colour(s).

In 1995 the plot thickens completely, where, on page 142 of Donald Bosch *et al.*, in *Seashells of Eastern Arabia*, he illustrates some marvellous examples of Masirah volutes, including illustrations of two (or perhaps more) amazing very different volutes that bear striking similarity to ‘Richardson’s’ shell, and interestingly distinct *festiva* colour variations.

In *World Shells* of 1996, Igor Bondarev does some really penetrative work, and poses many taxonomic questions regarding *Callipara*, *Festilyria* and *festiva*, and interestingly, brings *Harpulina* into this already complicated picture, and for good reason. He is well aware of ‘Richardson’s volute’, and is onto something when he alludes to the fact that such shell has morphological affinities with *Harpulina loroisi* / *lapponica*, which of course exist in the Indian ocean, off India and Sri Lanka, not too far east

of Masirah. His sketch of the zones of occurrence of *Callipara*, *Festilyria* and *Harpulina* is interesting, indeed.

In the 1997 *La Conchiglia Yearbook*, the richly illustrated *Volutes* of the Doute Collection present a spectacular very red 210 mm specimen from “off Somalia”, and four others from the same locality.

In 2002/3, the third author produced a *Taxonomy of Recent Volutidae*, presenting *Festilyria* as a subgenus under *Callipara*, with *festiva*, *duponti* and *ponsonbyi* as members.

In the *Iconography, The Tribe Lyriini*, by Bail and Poppe in 2004, *festiva* is presented as a large, knobbly species with “apparently rather extensive range, from Arabian coasts down to North Mozambique”. In their remarks, they state that “This species has few variants”, adding that they considered that *festiva deceptrix* is merely a variant. It must be assumed, that as recently as 2004, precious little was still known or recognized of the Arabian

population, which we can finally bring into full focus in this paper. We would agree that *festiva* var. *deceptrix* is indeed one of the colour variants of the true *C. festiva* as described by Lamarck in 1811.

In 2005, in Strandloper 276, the second author and Alwyn Marais present the Tribe *Lyriini* from the East coast of Africa, also illustrating the broad, knobbed shell and narrower *deceptrix*. The actual enigma remained until the introduction of multiple specimens, where finally, we are able to demonstrate continuous and separable morphology and colour, bringing us to the purpose of this paper where a description (account) of species is presented.

ABBREVIATIONS

| | |
|-----------|--|
| AMNH | American Museum of Natural History, New York |
| BMNH | British Museum of Natural History, London |
| HSN | Hawaiian Shell News |
| NMR | Natural History Museum, Rotterdam |
| NMW | National Museum Wales (Amgueddfa Cymru), Cardiff |
| sp. nov. | Species nova – new species |
| var. nov. | Variant nova – new variant |
| Coll. | Collection |

SYSTEMATICS

Family Volutidae, Rafinesque, 1815
 Subfamily Volutinae, Rafinesque, 1815
 Tribe Lyriini, Pilsbry and Olssen, 1954
 Genus *Callipara*, Grey, 1847
 Subgenus *Festilyria*, Pilsbry and Olssen, 1954.

Callipara (Festilyria) festiva

Lamarck, 1811

(Figure 5, Plate 1 Figures 1-3)

Shells volute-like, with consistent narrow profile, protoconch and teleoconch whorls pale coloured. Low axially continuous ribs cover the whorl to the shoulder. Average size (200+ specimens), 78.3 mm, ranging from 42.1 mm to 120.6 mm. May grow to in excess of 135 mm. Background colour pale salmon to flesh-coloured. Pattern of radial rows of thin, dark axial lines, sometimes with a distinct central band of darker colour. Random patches of brown colour on the dorsum. Shells often have ~5 rows of distinctive pale radial dashes.



Figure 5. Typical colouration of *C. festiva* from Masirah Island and off the shores of the Al Wusta Governorate of Oman, 75.8 mm. Coll. A.R.R. Childs

Distribution. Off the coastlines of Masirah Island and elsewhere, in the south-eastern Arabian country of Oman; mainly beach-collected to date, alluding to a shallow water habitat.

Comments. As has become clear, this more recent ‘discovery’ is with little doubt the true

representation of “*Festilyria festiva*”. Images presented in this paper confirm the theory that the original specimen used by Lamarck for his (historical) description, is a shell from the area of Oman, and close to fully adult, not a juvenile as assumed by Weaver.

A fantastic dark variant of *C. festiva* is found in Dhofar, southern Oman by V. Dobson in October 2016 ... enhancing those radial dashes ... “Dobson’s festiva” is currently the only known example of this rare colour form *C. festiva* var. *dobsonae* var. nov. (Plate 1 Figure 4). This colour form is not found further north in Oman.



Figure 6. *C. festiva* var. *lizae* var. nov. (also known as the “Type-2” of some authors). Image courtesy of Sergey Rusov.

The Masirah Island population is the primary location for the *C. festiva*. Of the shells found there, approximately 2% of those collected show a strikingly different and stronger colour. This is shown centre left of p.142 in *Seashells of Eastern Arabia*, 1995. Originally considered just to be a “fresher” specimen, this is now considered to be a much less common, but distinct, colour variant – *C. festiva* var. *lizae* var. nov. (Figure 6, Plate 2 Figures 1-2), also

known as the “Type-2” of some authors and is named for the grand-daughter of the first author.

Etymology. Festiva = excellent (from the Latin) ... the decorated Volute.

Callipara (Festilyria) casaana Childs, Aiken & Bail, sp. nov.

(Figure 7, Plate 2 Figures 3-4. Plate 3 Figure 3)

Description. Shells extremely large (even for most volutidae), reaching 250 mm, with very broad profile. Protoconch and teleoconch whorls deep orange-red coloured. Whorls with low ribs, terminating in large shoulder knobs, aperture broad, salmon-pink internally. Radial pattern often with groups of thin, dark and narrow closely-spaced axial lines, terminating in black markings on the labral edge in specimens without filed lips. Base of columella marked with black. Kosuge & Nomoto describe the animal as “pale red with round and oval black-brown spots”.



Figure 7. *Callipara (Festilyria) casaana* sp. nov. Holotype 208 mm, in NMR Rotterdam 9930_53402. Image courtesy of Frans Sliker, NMR.

Types. Holotype *Callipara (Festilyria) casaana* sp. nov., 208 mm, deep water off the coast of Somalia. Collection NMR Rotterdam 9930_53402.

Distribution. Trawled in fairly deep water off the coast of Somalia.

Comments. Touted as *Festilyria festiva* for years, this species is consistently different from its Arabian congener, and therefore needs a separate taxon name. Reportedly collected only from trawler operations, this would allude to a deeper water habitat. A highly pertinent piece of discriminatory information is the animal description above, which is radically different from that reported for *Callipara victoriae* sp. nov.

Etymology. Casaana, meaning “red” in the local Somali language.

Callipara (Festilyria) victoriae Childs, Aiken & Bail, sp. nov.

(Figures 8-9, Plate 3 figures 1-2)

Description. Shells fairly light, profile ovate, shoulder smooth and rounded, protoconch bulbous, shell size around 85 mm. Whorls with low, indistinct shoulder knobs, becoming virtually obsolete on the final whorl. Columella concave, with two or three discernible pleats, anteriorly placed. Outer lip appears bevelled. Background colour cream, overlaid by a series of thin dark radial lines in parallel, between which are rows of thin, brown axial markings, terminating at the edge of the lip as dark marks. (This is a feature that is seen in a number of members of the tribe *Lyriini*, termed by the second author as “Lyria lines”). Base of columella marked with a dark blotch. In the only live-taken specimen, (known as “Richardson’s volute”), living features were recorded as: “the foot and body of the animal

were smokey-yellow, with green markings all over”.



Figure 8. Holotype specimen of *Callipara (Festilyria) victoriae* sp. nov. 84 mm, AMNH 245760. Image courtesy of American Museum of Natural History.

Types. Holotype *Callipara (Festilyria) victoriae* sp. nov., 84 mm, Masirah Island, Oman. Collection AMNH #245760.

Distribution. Only known from a specific location on Masirah Island, Oman.



Figure 9. 84.5 mm specimen of *Callipara (Festilyria) victoriae* sp. nov. collected in the late 1970s. Image courtesy of Robert Schoeller, USA.

Comments. The first author has spent much time tracking down examples of this very rare species. To date, only around a dozen specimens are known.

National Museum Wales ex M. Day Collection; three shells, two adult, one juvenile, held under references NMW.Z.1993.055.04 and NMW.Z.1995.002.131.

Three shells in the American museum of Natural History, under reference AMNH 245760.

HSN, “Richardson’s Volute”. One shell on display at the Masira Island Resort hotel.

Two (or possibly more) shells in Bosch Book, Page 142.

One worn shell collected August 2020 by Leslie and David Bosch.

Over time, there has been a paucity of information on its existence, which is brought together here. Although clearly a *Lyria*, it is morphologically fascinating and different, with its ovoid ‘plump’ shape and shorter spire. The instinctive work of Bondarev (and Poppe perhaps), pointed to a relationship with the Genus *Harpulina*, found not too far east of Masirah, creating the idea that *C. victoriae* forms a link to *Harpulina*, but can also be compared with what is possibly its closest ‘*Lyria*’ congener, *L. mallicki jessicae*, ... plump, straw yellow background with thin radial lines.

Etymology. Named for the partner of the first author, who has done much collecting with him.

Callipara (Festilyria) festiva
var. *deceptrix* Palazzi, 1981
(Plate 3, Figure 3, Plate 4)

Description. Shells narrow, morphologically similar to the true Masirah *festiva*, but much larger. The size averages 175 mm, with a high spire, coloured red, with continuous, low axial ribs.

Distribution. Dredged from the channels southwest of Socotra Island and around the coast of Somalia.

Comments. The first author has proposed that in ‘*deceptrix*’, there may be found a link between the large broad Somali *casaana*, and the small, narrow Masirah *festiva*, as it has inherited the strong orange/red colouration and larger adult size seen in *casaana*. Certainly, the few more reliable references to this form are that it is found in 60 to 95 metres of water somewhere “off Yemen”, which does put it firmly between *casaana* and *festiva*.

Palazzi’s description of *deceptrix* in 1981 was clearly based on a comparison with the Somali species we have named herein as *C. casaana*. It appears that he did not reference examples from Oman, and seems to have missed a comparison with the Lamarck type entirely. Like us, he observed morphological and size differences, but in a very limited sample size. The shape and form of “Yemen” specimens bear a similarity to Omani *festiva*, but with the red teleoconch whorls. At 150 to 200 mm in length, they deviate significantly from the shorter *festiva*, but we feel it is prudent at this point to maintain it as a mere colour variant, under the true *festiva*. Further research may point to some hybridisation, with the *C. casaana* parentage providing genes that introduce the red colouration and larger size.

CONCLUSION

- *Callipara (Festilyria) festiva* as described by Lamarck in 1811 is only known from Oman.
- *Callipara casaana* sp. nov. has been misidentified as *Callipara (Festilyria) festiva* from the first reporting of these shells, thought to be in the 1960s.
- *Callipara victoriae* sp. nov. is a different species from *Callipara (Festilyria) festiva*.

In addition to the common pale colouration found on Masirah Island, *Callipara festiva* exhibits three additional distinct colour form variants.

Callipara festiva var. *deceptrix* is only found off the coasts of Somalia and Djibouti, and is the best-known colour variant of the true *Callipara (Festilyria) festiva*. It is not a separate *Callipara* species, nor is it a form or subspecies of *Callipara casaana* sp. nov. Further research is, however, required to confirm whether there is any hybridisation parentage here.

In addition, two other colour forms of *Callipara festiva* are described in this paper by the first author. These are *C. festiva* var. *dobsonae* from Dhofar, and *C. festiva* var. *lizzae* from Masirah Island, Oman.

ACKNOWLEDGEMENTS

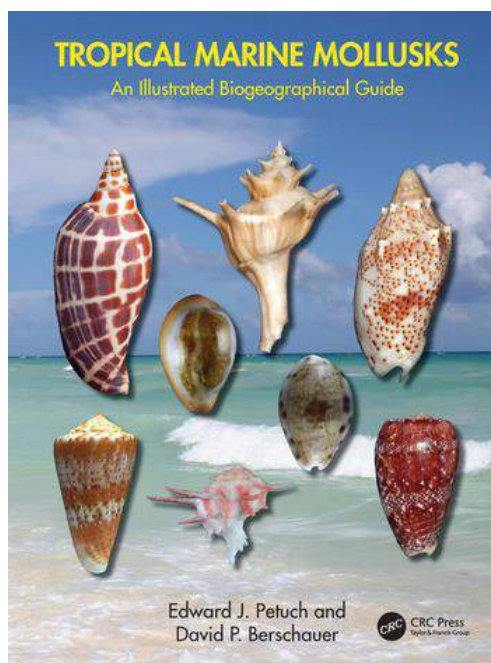
Thanks are due to M. Scali and V. Liverani for proposing to the first author that he should investigate this conundrum. Also thanks to David and Leslie Bosch for their support and the provision of additional sizing data and photographs of a considerable collection of *C. festiva* found on Masirah Island in Oman, which supported the theories put forward in this paper.

S. Rusov kindly provided photographs of the darker Masirah Island variant previously known merely as “Type-2”, here named as *C. festiva* var. *lizzae*.

We would be remiss to omit V. Dobson who provided encouragement and was an unfailing shelling partner, who also found many specimen shells that were measured, photographed and studied to produce this paper. The naming of *C. festiva* var. *dobsonae* is a tribute to this.

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Tropical Marine Mollusks - An Illustrated Biogeographical Guide

CRC Press - December 2020

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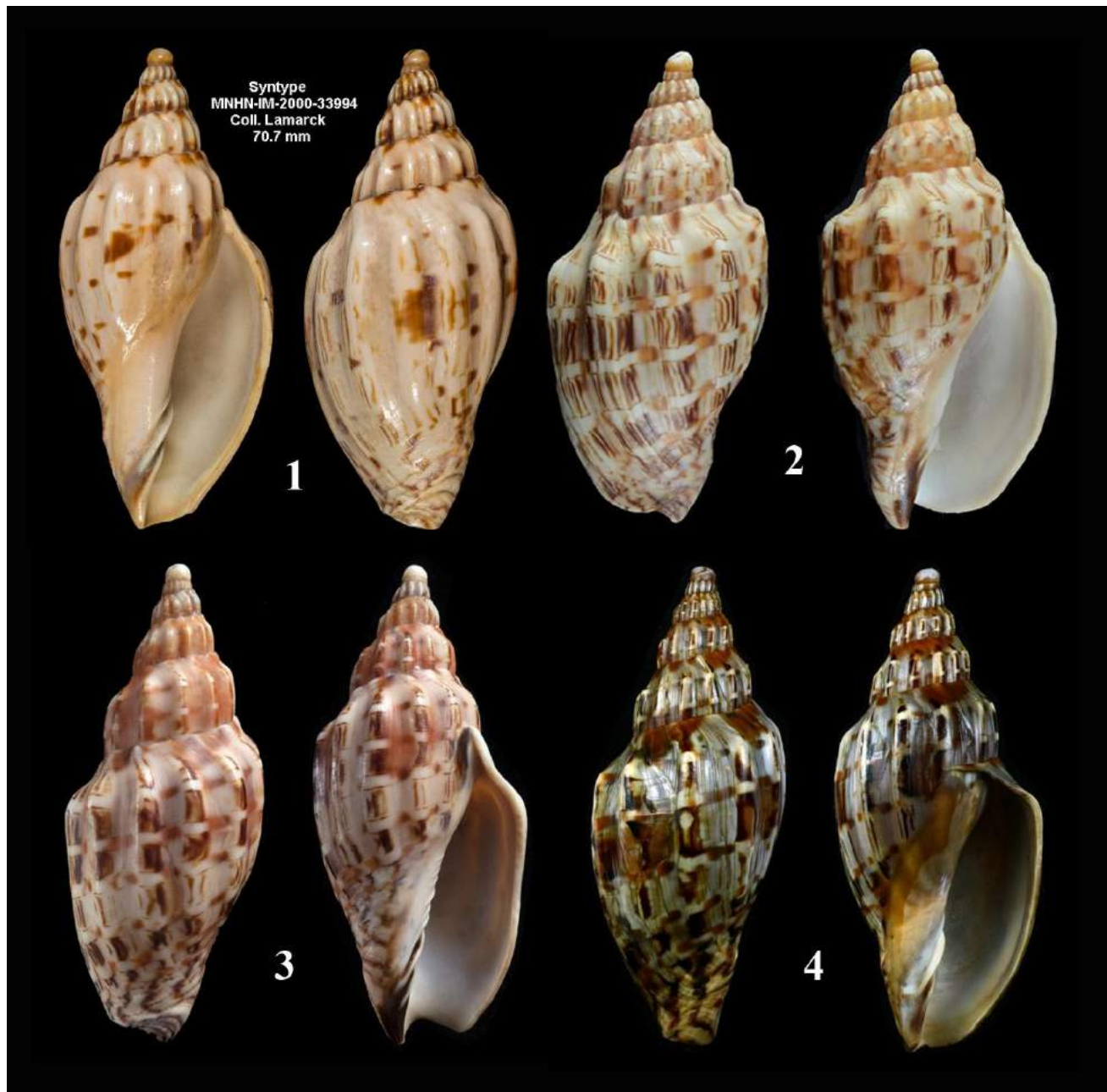


Plate 1. 1. *Callipara (Festilyria) festiva* syntype. Image courtesy MNHN, France. 70.7 mm. 2. Typical colouration of *C. festiva* found on Masirah island and off the shores of the Al Wusta Governorate of Oman. Coll. A.R.R. Childs #102841. 3. 81.5 mm *C. festiva* from Masirah Island. Coll. P. Bail. 4. *C. festiva* var. *dobsonae* from Dhofar, Oman, 76.0 mm. Coll. A.R.R. Childs #101451.

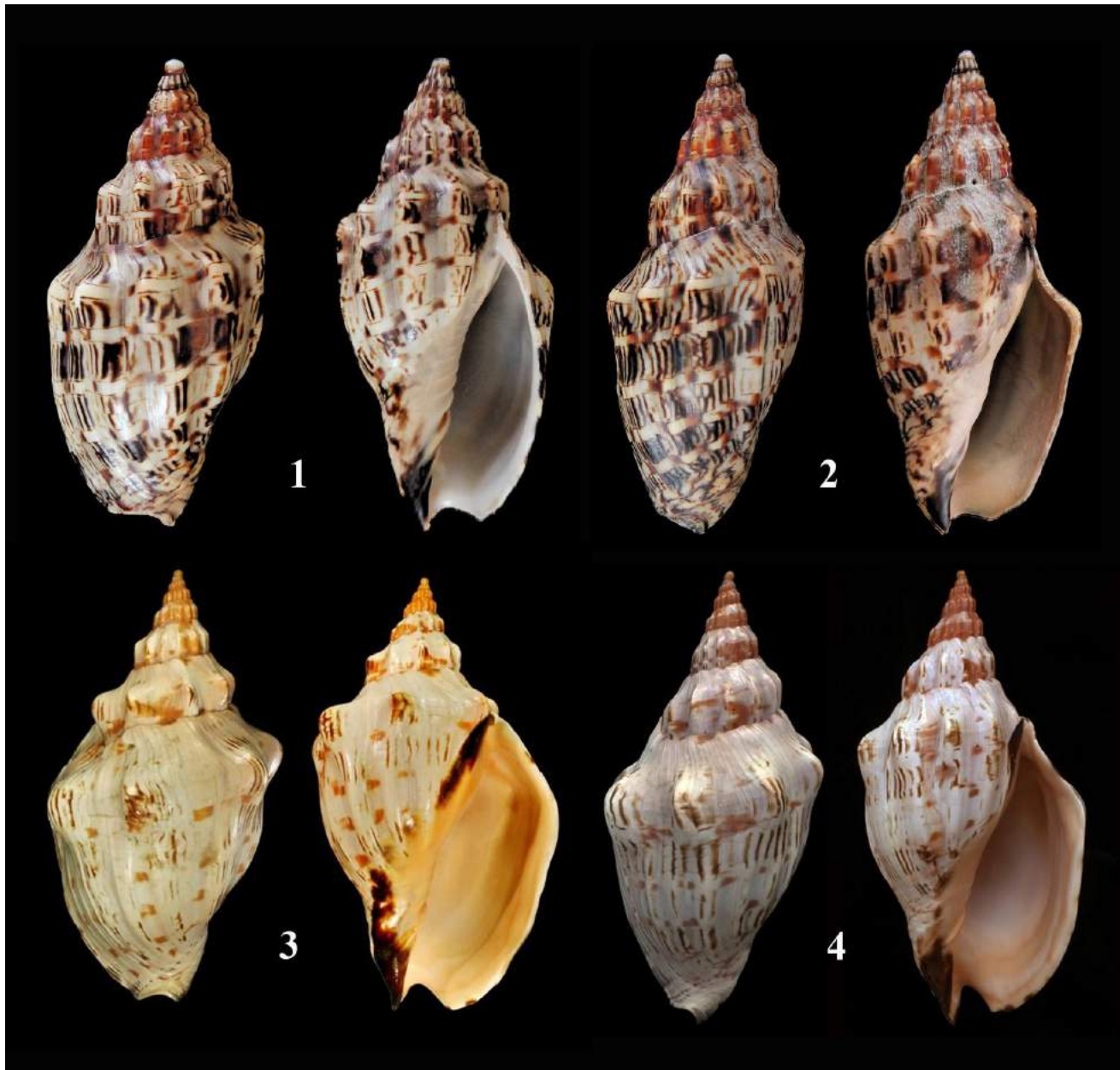


Plate 2. 1. *Callipara (Festilyria) festiva* var. *lizae* (85 mm) Image courtesy of David and Leslie Bosch. 2. *Callipara (Festilyria) festiva* var. *lizae* (102 mm) Image courtesy of David and Leslie Bosch. 3. *C. casaana* sp. nov. (208 mm), Coll. NMR Rotterdam 9930_53402. Image courtesy of Frans Sliker, NMR 4. *C. casaana* shells found off Somalia. (205 mm), Coll. P. Bail.

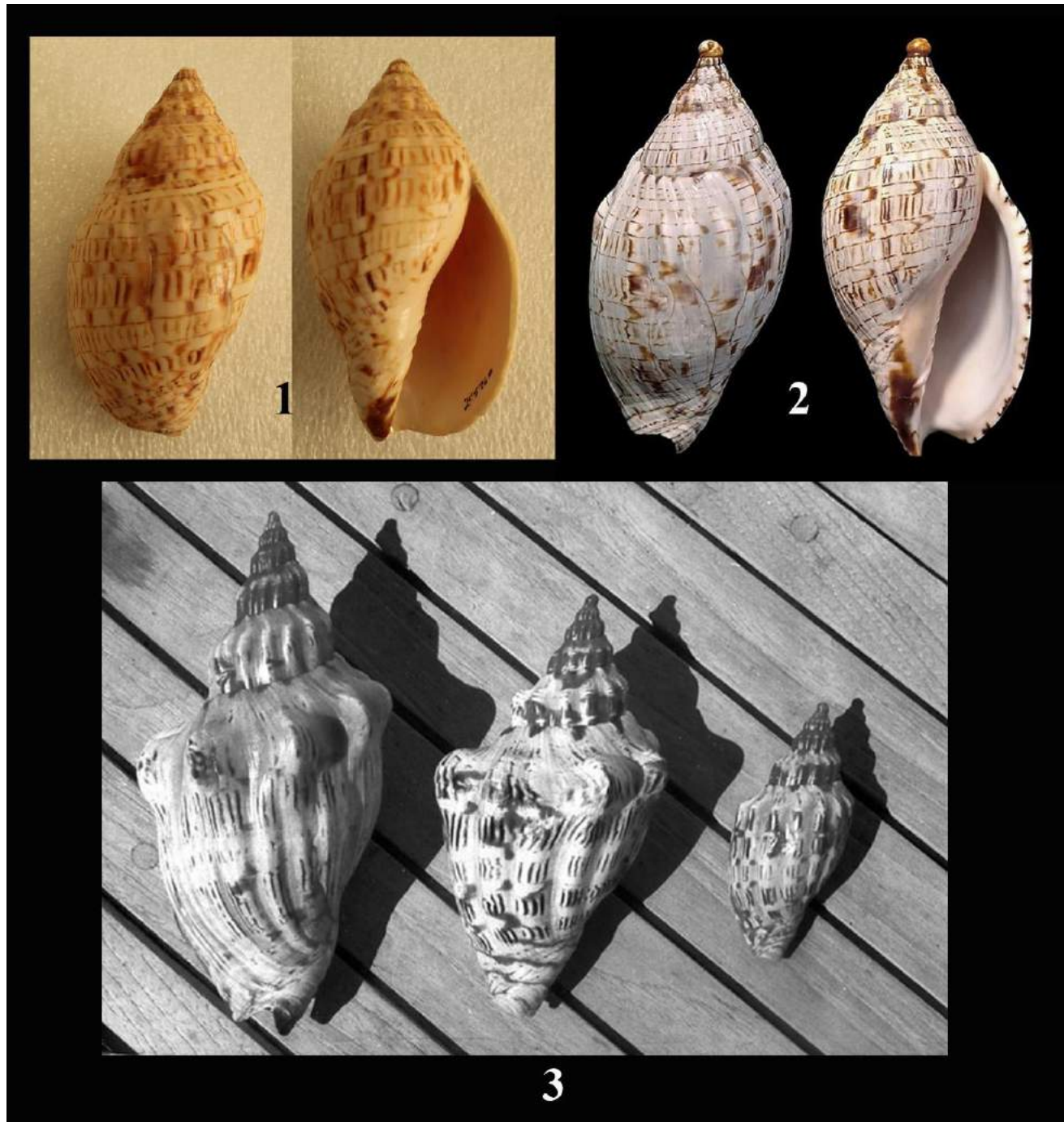


Plate 3. 1. *Callipara (Festilyria) victoriae* sp.nov. (84 mm), Holotype, Coll. AMNH 245760. Image courtesy of AMNH. 2. *Callipara (Festilyria) victoriae* sp.nov. (84.5 mm), Image courtesy of Robert Schoeller, USA. 3. A comparative photo of the slim *C. festiva* var. *deceptrix* alongside two much larger *C. casaana*. This photo was taken after a shelling trip off the coast of Djibouti. Image by P. Bail.



Plate 4. Holotype shell of *Callipara festiva* var. *deceptrix* Palazzi, 1981, (116 mm), Southern Somalia, collected by G. Lugli. Coll. Museo Civico di Storia Naturale di Milano.