Annals and Magazine of Natural History: Series 4

Publication details, including instructions
for authors and subscription information:
<http://www.tandfonline.com/loi/tnah10>

XVI.—List of Echinoderms collected by Robert M'Andrew, Esq., F.R.S., in the Gulf of Suez in the Red Sea

Dr. J.E. Gray F.R.S.

Published online: 16 Oct 2009.

To cite this article: Dr. J.E. Gray F.R.S. (1872) XVI.—List of Echinoderms collected by Robert M'Andrew, Esq., F.R.S., in the Gulf of Suez in the Red Sea, *Annals and Magazine of Natural History: Series 4*, 10:56, 115-125, DOI: [10.1080/00222937208696655](http://dx.doi.org/10.1080/00222937208696655)

To link to this article: <http://dx.doi.org/10.1080/00222937208696655>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses,

actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

XVI.—*List of Echinoderms collected by Robert M'Andrew, Esq., F.R.S., in the Gulf of Suez in the Red Sea.* By Dr. J. E. GRAY, F.R.S. &c.*

SAVIGNY, who accompanied the French Expedition to Egypt, drew and engraved in the most beautiful and elaborate style the Echinoderms that were collected during that Expedition.

They form part of the plates of the magnificent imperial but most useless work that is usually called the great work on Egypt. This work, though published at the commencement of the present century, is hardly known to scientific zoologists, and is rarely to be seen out of the great public libraries. So much is this the case, that on my showing the details of a species figured in it to a well-known Scandinavian zoologist, he inquired what work it was, he had never seen or even heard of its existence.

There are many species figured in the zoological portion of it that are as yet unknown and unnamed; and many of the microscopic peculiarities of the species that are there figured are being every now and then produced as modern discoveries; and there are yet others still to be described as new.

It is truly a "work of luxury" and not for scientific utility, though it contains, as I have observed, most accurate details which were far in advance of the scientific knowledge of the period, and in some respects of the present time†; but the great expense of the work and its immense size have rendered it almost a closed book to scientific men.

Unfortunately M. Savigny became blind before he was able to complete the descriptions of the animals and refer to the details on the plates of the Echinoderms; indeed he only published the descriptions of the Annelides and the Ascidia.

Professor Victor Audouin published an "Explication sommaire des planches des Echinodermes" and other divisions of the animal kingdom that had been drawn and engraved under Savigny's directions.

Unfortunately he does not seem to have had at his disposal the original specimens figured for sheet 1; and he observes, "En comparant les figures 1, 2, et 3 aux espèces représentées

* This manuscript was prepared and written soon after Mr. M'Andrew's return; but being left on my writing-table during my temporary illness, it was carefully put away by my attendant, along with a quantity of manuscripts on Bats (where it was not looked for), and was only accidentally found a few weeks ago.—J. E. G.

† This is particularly the case with the Sponges, the texture of the mass and the spicules of each species as seen under the microscope being exhibited in detail.

par Müller on leur trouve plusieurs fois des ressemblances avec l'*Ophiura fragilis* et l'*Ophiura tricolor* de M. de Lamarck, mais il seroit difficile de donner une détermination positive" (p. 206).

Now that specimens have been obtained from the Red Sea and the coast of Syria, it is found that many of the species represented by Savigny are different from those to which Audouin referred them; but as yet I have not been able to compare the species of that family with the published work on them as carefully as I could have wished; and it is better they should remain until Dr. Perceval Wright, who has undertaken to make an examination of the Echinoderms in the Museum, with some other naturalists who have paid special attention to this group of animals, have examined and compared them.

I here give a list of the plates and the explanations as far as they are referred to:—

Savigny, Echinodermes de l'Egypte.

- Tab. 1. figs. 1, 2. Comatules. Multiradiata, Aud. 105. Comatula Savignii, J. Müller.
fig. 3. *Ophiura echinata*, Aud. 106. *Ophiolepis dubia*, Müller & Troschel.
- Tab. 2. fig. 1. Ophiures. *O. fragilis*, Aud. 106.
fig. 2. —. *O. fragilis*, Aud. 106.
fig. 3. —. *O. tricolor*, Aud. 106.
fig. 4. —. *O. squamata*, Aud. 107. *Ophiolepis Savignii*.
- Tab. 3. *Asterias Savignii*, Aud. *Luidia Savignii*. B.M.
- Tab. 4. fig. 1. *Asterias aurantiaca*, Aud. 108. *Astropecten*.
fig. 2. *A. calcar*, Aud. 108. *Asteriscus pentagonus*.
fig. 3. *A. seposita*, Aud. 108. *Rhopia seposita*. B.M.
- Tab. 5. figs. 1, 2. *A. mamillata*, Aud. 109. *Pentaceros mamillata*.
- Tab. 6. Oursins. *Cidarites Savignii*, Aud. 110.
- Tab. 7. fig. 1. —. *C. baculosa*, Aud. 110.
fig. 2. —. *Echinus pallidus*, Aud. 110.
fig. 3. —. *Scutella bifissa*, Aud. 110. B.M.
fig. 4. —. *Spatangus crux-Andreæ*, Aud. 111.
fig. 5, 6. —. *S. canaliferus*, Aud. 111.
- Tab. 8. figs. 1–5. Holothures, sp.

I have made a list of all the species which I have found recorded as inhabiting the Red Sea, and marked those that have been collected by Mr. M'Andrew, and those that are in the British Museum from other sources.

I have added a few notes formed on the examination of Mr. M'Andrew's specimens.

Fam. Comatulidæ.

Comatulides et *Comatuliens*, Dujard. & Hupé, pp. 186, 191.
Comatula, Lamk.

Comatula Savignii, J. Müller; Dujard. & Hupé, p. 203.

Echinoderme, Savigny, Egypte, t. 1.

Comatula multiradiata, Aud. Expl. pl.

— *adonæa*, Blainv. Man. d'Actin. p. 249, t. 26.

Arms twice or three times forked at the base, with more than twenty secondary or tertiary arms.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Fam. *Ophiuridæ*, Gray, Syn. B. M. 1840, p. 63.

Ophiurides, Dujard. & Hupé, p. 219.

Ophiolepis dubia, Müller & Troschel, p. 94; Dujard. & Hupé, p. 240.

Ophiura, Savigny, Egypte, t. 1. f. 3.

Hab. Red Sea.

Ophiolepis Savignyi, Müller & Troschel, p. 95; Dujard. & Hupé, p. 240.

Ophiura, Savigny, Egypte, t. 2. f. 4, 5.

— *squamata*, Aud. Expl. p. 107.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Ophiolepis annulosa, Müller & Trosch. p. 89, t. 8. f. 4; Dujard. & Hupé, p. 236.

Ophiura annulosa, Blainv. Man. d'Actin. t. 44 (not Lamk.).

Hab. Red Sea.

Ophiolepis cincta, Müller & Trosch. p. 90; Dujard. & Hupé, p. 237.

Hab. Red Sea.

Ophiura brachyura.

Body smooth, without shield or spines, white-lined; arms short, thick, tapering; lateral spines elongate.

Hab. Gulf of Suez (M'Andrew). B.M. no. 2.

Not in Savigny: arms much shorter than any there figured.

Ophiura —? (Not in good state.)

Disk with small spicules; lateral spines short, thick, not larger than diameter of arms.

Hab. Gulf of Suez (M'Andrew). B.M.

Not figured in Savigny's 'Egypte.'

Fam. *Asteridæ*.

Asterides, D. & H. p. 307, 1862.

Rhopia seposita, Gray.

Asterias seposita, Retz. Vetensk. Akad. iv. p. 337; Aud., Müller and Troschel.

Cribella seposita, Dujard. & Hupé, p. 354.

Asterias, Savigny, Echinod. Egypte, t. 4. f. 3.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Linckia typus, Gray, Ann. & Mag. N. H.

Asterias lævigata, Linn.

Ophidiaster miliaris, Müller & Troschel, p. 30, t. 2. f. 2; Dujard. & Hupé, p. 360.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Gomophia ægyptiaca, Gray, Ann. & Mag. N. H. 1840, vi. p. 286; see Martens, Wieg. Arch. 1866, p. 62.

Hab. Red Sea. B.M.

Asteriscus pentagonus, Dujard. & Hupé, p. 378; Seba, t. 5. f. 19 (cop. E. M. t. 100. f. 3?)

Asterias calcar, Aud.; Savigny, Echinod. Egypte, t. 4. f. 2.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Asterina Burtonii, Gray, Ann. & Mag. N. H. 1840, vi. p. 289.

Asteriscus vermiculatus, Müller & Troschel.

Asterina gibbosa, Martens, Wieg. Arch. 1866, p. 72.

Hab. Red Sea (J. Burton). B.M.

Pentaceros —?, Savigny, Echinod. Egypte, t. 5. figs. 1, 2.

Asterias mamillata, Aud. Expl. p. 209.

Oreaster mamillatus, Müller & Troschel, Syst. Ast. p. 48; Dujard. & Hupé, Echinod. p. 383.

Back reticulated; margin spinose.

Var. Reticulation of the back more obscure, more closely covered with granulations; the margin not spinose.

Hab. Red Sea (Savigny); Gulf of Suez (M'Andrew). B.M.

? *Pentaceros tuberculatus*.

Oreaster tuberculatus, Müller & Troschel, Syst. Ast. p. 46; Dujard. & Hupé, Echin. p. 381.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Goniaster Sebæ, Gray, Ann. & Mag. N. H. vi. p. 28.

Goniodiscus Sebæ, Müller & Troschel, Syst. Ast. p. 58; Dujard. & Hupé, Echin. p. 402; Seba, Thesaur. t. 6. f. 7, 8.

Hab. Red Sea.

Astropecten polyacanthus, Müller & Troschel, Syst. Aster. p. 69,
t. 5. f. 3; Dujard. & Hupé, Echin. p. 417.

Hab. Gulf of Suez (M'Andrew). B.M.

Astropecten Hemprichii, Müller & Trosch. Syst. Aster. p. 71;
Dujard. & Hupé, Echin. p. 419.

Hab. Red Sea (Burton); Gulf of Suez (M'Andrew). B.M.

Genus LUIDIA, Forbes.

Hemicnemus, Müller & Troschel.

Luidia Savignii, Gray, Ann. & Mag. N. H. 1840, vi. p. 183;
Müller & Troschel, Syst. Ast. p. 77, 1842; Savigny,
Echin. Egypte, t. 3. f. 1; Hupé, p. 432.

Asterias Savignii, Aud. Expl.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Fam. Cidaridæ, Gray.

Cidarides, Dujard. & Hupé, p. 468.

Cidaris baculosa, Lamk. A. s. V.; Aud. 111; Savigny, Echin.
Egypte, t. 7. f. 1; Michelin, Mag. Zool. 1845, p. 18, t. 4.
f. 1-8; Dujard. & Hupé, p. 471; Martens, Wiegman. Arch.
1866, p. 141.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

The spines vary in form according to the age of the specimens. In the young the spines are elongate, slender, fusiform, with the distal end attenuated to a more or less acute tip, and the spines are twice or sometimes even more than twice the length of the diameter of its body.

In the older specimens the spines are nearly cylindrical, scarcely attenuated at the end, which is often truncated; they are rarely longer than the diameter of the body: the spines near the vent have the apex deeply and irregularly grooved; those nearer the mouth have the end truncated and more or less dilated, with a more or less flat or concave end, which is sometimes furnished on the margin with irregular lobes.

The spines on the upper surface of the body are often entirely covered with tufts of *Jania* or a thin crust of *Lepralia*; and some of them have one or more small parasitic oysters with a crenated and plicated margin affixed to them: such parasitic growths were not present on the spines of any of the other *Echini* in the collection. The spines on the underside, especially those nearer the mouth, are clear, and show the

spicules on the surface; these vary a little in shape at the end.

A very young specimen, apparently of the same species, is brown, and the spines brown and white-ringed; the spines are quite clear, and covered with longitudinal series of rather large rounded tubercles. The spines vary in shape: they are generally cylindrical and truncated; but a few are fusiform and tapering to a point.

Cidaris ornata (Gray, P. Z. S. 1855, p. 37) is perhaps a variety.

Echinothrix Desorii, Bölsche, Archiv für Naturgesch. 1865, p. 330.

Astropyga Desorii, Agassiz, Ann. Sci. Nat. 1846, p. 345.

Hab. Red Sea.

Diadema Savignii, Michelin, Mag. Zool.; Agassiz, A. R. p. 349; Dujard. & Hupé, Echin. p. 505; Savigny, Echin. Egypte, t. 6; Bölsche, Arch. für Naturg. 1865, p. 227.

Cidarites mamillata, Aud. p. 109.

Jun. *D. Lamarckii*, Agassiz.

Echinothrix calamaris, Peters.

— *turcarum*, Peters, Bölsche.

Garetia turcarum, Agassiz.

Diadema Dujardini, Michelin, Mag. Zool. 1845, t. 7.

Var. 1. The spines of the oral surface white.

Var. 2. Spines all pale.

Hab. Red Sea.

See:—*Diadema (Echinothrix) calamare*, Martens, Wiegman. Arch. 1866, p. 150. *Echinus calamarius*, Pallas, Spic. Zool. x. p. 38, t. 2. f. 4–8; Gmelin, Syst. Nat. p. 3173. *Cidaris calamarius*, Leske, Lamk., Gray; Michelin, Rev. Zool. p. 14, no. 26. *Astropyga calamaria*, Agassiz.

The shell is covered with small black spines. The upper part of the shell has a broad, smooth area, radiating from the anal opening, as in *Astropyga*. The spines are very slender, tubular, and covered externally with whorls of short, regular, closely packed, adpressed spines. The spines near the oral region are slender, subcylindrical, striated, slightly depressed, and clavate at the end.

I have not seen any specimen with such long slender spines as that figured in the great work on Egypt. In all I have seen the spines were thicker compared with their length, and much shorter compared with the diameter of the body.

Temnopleurus toreumaticus, Agassiz ; Dujard. & Hupé, p. 514;
Gray, P. Z. S. 1855, p. 39.

Cidaris toreumaticus, Klein.

Echinus sculptus, Lamk.

Hab. Red Sea. Subfossil, Isle of Karrah (Dujardin).

Fam. **Echinidæ.**

Echinides, Dujard. & Hupé, Echin. p. 440.

Triptneustes — ?

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

"Pure red when alive" (M'Andrew). B.M.

Triptneustes — ?

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

"White when alive" (M'Andrew).

Fam. **Echinometridæ.**

Echinometra lucunter, Gray ; Dujard. & Hupé, p. 538.

Echinus lucunter, Linn.

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

Tubercles very numerous, small.

? *Echinometra heteropora*, Agassiz ; Dujard. & Hupé, p. 538.

Hab. Red Sea. Subfossil (Dujardin).

Acrocladia mamillata, Agassiz ; Dujard. & Hupé, p. 539.

Cidaris mamillatus, Leske, t. 6, t. 39. f. 1.

Echinus mamillatus, Lamk.

Echinometra mamillata, Blainv., Martens.

Heterocentrotus mamillatus, Brandt.

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

The spines vary greatly in shape ; they are usually clavate, but more or less three-keeled near the end, which is generally rounded.

The short, broad, top spine in two of the specimens was dark brown ; in another paler.

Acrocladia planispina, Martens, Verh. zool.-bot. Ges. in Wien, 1866, p. 381 ; Zool. Record, 1866, p. 617.

Hab. Red Sea (Martens).

Spines not triangular as in *A. trigonaria*, nor club-shaped as in *A. mamillata*, nor cylindrical as in another Red Sea species,

A. Blainvillei, but small and pointed, and the corona covered with true spines.

Agassiz notices a small specimen from the Red Sea in the Paris Museum, which he names *A. Blainvillei*.

See Dujardin & Hupé, *Echin.* p. 540.

I believe, from Mr. M'Andrew's series, that the *A. Blainvillei* is only a variety of *A. mamillata*.

Fam. *Scutellidæ*, Gray; Martens, *Wieg. Arch.* 1866, p. 170.

Clypeastroidea, Agassiz & Desor; Dujard. & Hupé, p. 554.

Echinanthus placunarius, Gray, *Cat. Echin. B. M.* p. 7.

Scutella ambigena, Lamk.

— *albigena*, Lamk.

— *placunaria*, Lamk.

Clypeaster placunarius, Lamk.; Dujardin. & Hupé, p. 571; Martens, *Wieg. Arch.* 1866, p. 172.

Hab. Red Sea; Gulf of Suez (M'Andrew).

Echinanthus scutiformis, Gray, *Cat. Echin. B. M.* p. 5.

Clypeaster scutiformis, Lamk.

Laganum scutiforme, Gray, *Ann. Phil.* 1825; Desor, *Syn.* p. 329; Dujard. & Hupé, p. 559; *E. M.* t. 147. f. 3.

Scutella clypeastriformis, Blainv.; Seba, *iii.* t. 15. f. 23, 24.

Laganum depressum, Lesson, *Voy. Uran.*; Agassiz, *Mon. Scut.* p. 110, t. 23. f. 1-7.

Hab. Red Sea; Gulf of Suez (M'Andrew).

Laganum attenuatum?, Gray, *Cat. Echin. B. M.* p. 10.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Laganum ellipticum, Agassiz, *Mon. Scut.* t. 23. f. 13-15; Dujard. & Hupé, p. 560.

Laganum attenuatum, Agassiz, *Cat. Scut.* p. 74; Dujard. & Hupé, p. 560.

Hab. Red Sea.

Echinodiscus truncatus, Gray, *Cat. Echin. B. M.* p. 20.

Lobophora truncata, Agassiz; Dujard. & Hupé, p. 565.

Scutella bifora, var., Lamk.

— *biforis*, Blainv.

Hab. Red Sea; Gulf of Suez (M'Andrew).

Echinodiscus maurita, Gray, *Cat. Echin. B. M.* p. 21.

Lobophora bifissa, Agassiz; Dujard. & Hupé, p. 363; Martens, *Wieg. Arch.* 1866, p. 174; Savigny, *Echin.* t. 7. f. 3.

Scutella bifissa, Lamk. *E. M.* t. 152. f. 1, 2.

Echinus mauritus, Gmelin, p. 3190.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Var. *Lobophora aurita*, Agassiz ; Dujard. & Hupé, p. 365.

Scutella bifissa, var., Lamk. E. M. t. 151. f. 5, 6.

Echinoglycus auritus, Vauchel. p. 34; Bleeker.

Echinodiscus inauritus, var., Gray, Cat. Echin. p. 21.

Hab. Red Sea.

Fibularia craniolaris, Lamk. ; Dujard. & Hupé, p. 557.

Echinus craniolaris, Gmel. S. N. p. 3193.

Fibularia nucleus, Lamk.

— *trigona*, Lamk.

— *lathyrus*, Lamk.

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

Fam. **Spatangidæ**, Gray, Cat. Echin. B. M. p. 38.

Brissus bicinctus, Val. ; Agassiz ; Dujard. & Hupé, Echin. p. 608.

Hab. Red Sea (Valenciennes, Mus. Paris).

Lovenia hystrix, Agassiz ; Dujard. & Hupé, Echin. p. 606 ;
Gray, Cat. Echin. B. M. p. 45 ; Savigny, Echin. Egypte,
t. 2. f. 3.

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

Spatangus meridionalis, Risso, Eur. Mérid. v. p. 228 ; Gray,
Cat. Ech. B. M. p. 47 ; Duj. & Hupé, Ech. p. 608.

Spatangus siculus, Agassiz & Desor.

Hab. Gulf of Suez (M'Andrew). B.M.

Periaster gibberulus, D'Orb. ; Dujard. & Hupé, p. 598.

Schizaster gibberulus, Agassiz ; Savigny, Echin. Egypte, t. 7. f. 6.

Hab. Red Sea (Savigny).

Fam. **Holothuriadæ**.

Holothuria impatiens, Linn ; Dujard. & Hupé, p. 617 ; Forsk.
Egypt, p. 121, t. 39. f. B=E. M. t. 86. f. 1.

Fistularia impatiens, Lamk.

Hab. Red Sea ; Gulf of Suez (M'Andrew). B.M.

Savigny figures eleven kinds of this family, viz. five in tab. 8 and six in tab. 9. They are not quoted by Dujardin and Hupé ; so I fear that the specimens obtained by the French naturalists and figured by Savigny no longer exist in the

French Museum, like the specimens obtained by Quoy, Gaimard, and other French travellers. I have not had the opportunity or time to examine the Red-Sea species.

Synapta reciprocans, Dujard. & Hupé, p. 615.

Fistularia reciprocans, Forsk. Egypte, p. 121, t. 30. f. 8=E. M. t. 87. f. 7.
Holothuria glutina, Lamk.

Hab. Red Sea (Forskål).

Synapta vittata, Jæger; Dujard. & Hupé, p. 615.

Fistularia vittata, Forsk. Egypte, p. 223, t. 37. f. 26=E. M. t. 87. f. 8, 9.
Holothuria vittata, Lamk.
Tvedemannia vittata, Lamk.

Hab. Red Sea (Forskål).

Alcyonoid corals and sponge from the Gulf of Suez, collected by R. M'Andrew, Esq., in 1868 :—

CORALS.

Sarcophyton —, n. sp.

On shells.

Ammothea virescens, Savigny, Pol. Egypte, t. 2. f. 6.

Nephthya Savignii, Ehrenb.

Xenea umbellata, Ehrenb.

Anthelia glauca, Ehrenb.; Savigny, t. 1. f. 7.

Anthelia grandis, n. sp.

Alcyonium aurum, n. sp.

This is not *Amocella*; the coral is not fleshy, but crustaceous externally, and with subcylindrical branches.

SPONGE.

Genus GRAYELLA, Carter, Ann. & Mag. N. H. 1869, iv. p. 190.

Sponge massive, expanded or subglobular, attached by an expanded base; outer surface covered with a smooth fleshy skin, with numerous, regular, equal-sized, flat-topped, low tubercles. Sponge fleshy, with spicules siliceous, fusiform, elongate, of one form.

Grayella cyathophora, Carter.

Hab. Red Sea; Gulf of Suez (M'Andrew). B.M.

Corals collected in the Red Sea by R. M'Andrew, Esq., in 1869, and given to the British Museum by Mr. W. S. Kent:—

Heterocyathus cochlea.	Fungia patella.
Stylophora pistillata.	Cycloseris cyclolites.
— subseriata.	Madrepora corymbosa.
Eusmilia fastigiata.	Turbinaria cinerascens.
Lithophyllia lacera.	Alveopora dædalea.
Mussa corymbosa.	Porites conglomerata.
Trachypora Geoffroyii.	Seriatopora lineata.
Favia cavernosa.	Tubipora musica.
Solenastræa Hemprichiana.	

XVII.—*Description of a new Genus and Species of Heterocerous Lepidoptera.* By ARTHUR GARDINER BUTLER, F.L.S., F.Z.S., &c.

[Plate VIII.]

THE following remarkable species is in the collection of the Rev. T. Cornthwaite. It presents the most wonderful modification of the Lepidopterous scale that I have ever seen; and I am much indebted to its possessor for the pleasure of describing and figuring it.

Group BOMBYCITES.

Family Notodontidæ.

TARSOLEPIS (ταρσὸς, λεπίς), gen. nov.

Gen. alis magnis, anticis elongatis, costa producta; antennis plus quam bis triente pectinatis; corpore robusto, abdomine elongato, squamis valde elongatis remiformibus analibus; valvulis dense pilosis; subtus cristis ad basin abdominis elongatis, arcuatis, coccineis, aliisque brevioribus, ochraceis. Generis typus *T. remicauda*.

Tarsolepis remicauda, sp. n. Pl. VIII.

Wings above brownish grey; the costæ and bases pale ochreous: primaries with central area chestnut-brown, interrupted between the nervures by double parallel lines uniting at their extremities and bounded externally by an irregular whitish line; two large subtriangular silver patches placed obliquely on central area; outer margin sinuated and bordered by a tricoloured band of black, ochreous, and chestnut; a very indistinct, blackish, lunulate line between margin and central area: secondaries paler than primaries, with dusky spot at end of cell; the margin externally chestnut-brown, internally pale ochraceous; fringe white: body above, with head, palpi, and antennæ, reddish brown, whitish in parts; collar very broad, silver-grey, with a transverse interrupted blackish stripe