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Bridging the Atlantic: the correspondence of Thomas Bland and William Binney with Hippolyte Crosse, between 1863 and 1885

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Abstract – Hippolyte Crosse has corresponded with many people all around the world during his editorship of the *Journal de conchyliologie* 1861 to 1898. From his correspondents in North America Thomas Bland and William Binney were his most important contacts, who sent him respectively 45 and 31 letters during 1863-1885. These letters are transcribed and reveal many exchanges of shells, anatomical data, but also give an impression of the wide group of American malacologists to which the two men had access. The publication date of the third *livraison* of the molluscan part of 'Mission au Mexique et Guatemala' can be fixed before end of April 1873. The contacts between the three men may be best explained by closeness of friendship and scientific authority.

Key words - History of malacology, France, U.S.A.

Résumé - Hippolyte Crosse a correspondu avec de nombreuses personnes dans le monde entier au cours de sa rédaction du *Journal de conchyliologie* de 1861 à 1898. Parmi ses correspondants en Amérique du Nord, Thomas Bland et William Binney sont ses principaux contacts. Ils lui envoient respectivement 45 et 31 lettres entre 1863 et 1885. Ces lettres sont transcrites et révèlent de nombreux échanges de coquilles, de données anatomiques, mais donnent également une impression du vaste groupe de malacologues américains auquel les deux hommes avaient accès. La date de publication du troisième envoi de la partie mollusque de «Mission au Mexique et Guatemala» peut être fixée avant la fin avril 1873. Les contacts entre les trois hommes s'expliquent mieux par la proximité de leur amitié et leur autorité scientifique.

Mots clés - Histoire de la malacologie, France, États-Unis d'Amérique

Introduction

During the second half of the 19th century prominent centres of malacology were found in Europe (France and Germany especially were outstanding), while in the United States the number of malacologists was still relatively small. The connections between the two continents depended largely on exchanges via the mail, apart from some sparse personal contacts. The recent inventory of the correspondence addressed to the Director of the *Journal de conchyliologie*, Hippolyte Crosse (1826-1897), has shown that in North America the most important contacts were with Thomas Bland and William Binney in the United States (BREURE & AUDIBERT, 2017). Of the total 35 American correspondents they sent 41% of the letters received. When we look at the nine respondents who are responsible for 75% of the letters (Fig. 1), we notice a marked accent on the early years of Crosse's directorship of the *Journal*.

The letters exchanged with Bland and Binney give a good impression of their contact with Crosse, giving details about several exchanges that were made, and shedding light on some of the sources for the monograph on Mexican molluscs which Paul Fischer together with Crosse published from 1870 onwards. The existing letters have been transcribed and are presented in the Appendix, where also the explaining notes may be found.

The correspondents

Thomas B. Bland (Fig. 2) was born on 4 October 1809 at Newark-on-Trent, Nottinghamshire, England as the son of Dr Thomas Bland, a physician. He inherited his love for natural history from his mother who had a collection of shells, plants, and minerals. Educated in London, he studied law and entered its practice there, where he became a Fellow of the Royal Geological Society in 1836. Between 1842 and 1850 he resided first on Barbados and then on Jamaica, where he became close friends with Prof. Charles Baker Adams (1814-1853)⁽¹⁾. After his return to England he soon went to Marmato, Colombia to become superintendent of a gold mine. In 1852 he went to New York City becoming engaged in mining related business for the rest of his life. His health was impaired during his last years and he died 20 August 1885.

During his stay on Jamaica, through C.B. Adams, he became especially interested in West Indian land snails. Adams also introduced him, after his move to New York, to American conchologists, and he became befriended especially with Charles Moore Wheatley (1822-1882)⁽²⁾ and John Howard Redfield (1815-1895)⁽³⁾. The latter introduced him

to the Lyceum of Natural History in New York, where Bland became active in their publication committee. His collection is at least partly at the American Museum of Natural History, New York; see also GRATACAP (1901). His bibliography has been published by A.F. GRAY (1884). These notes are based on BINNEY (1885).

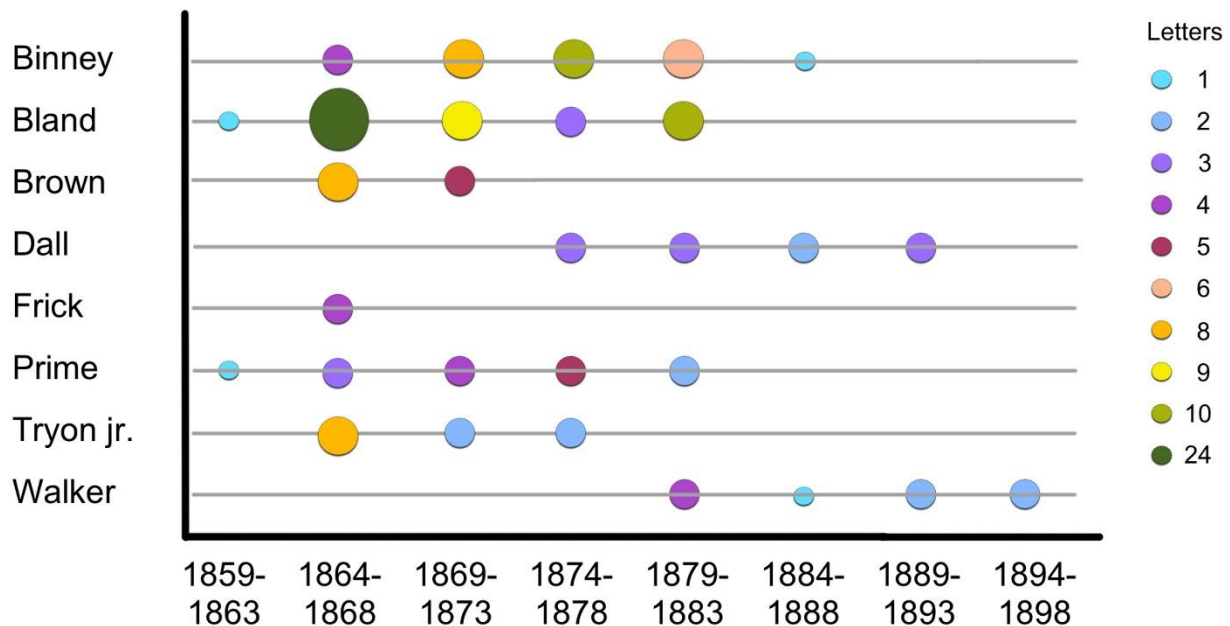


Fig. 1. American correspondents who sent 75% of the letters received from that country in the period 1859-1898: W.G. Binney, T. Bland, A.D. Brown, W.H. Dall, D. Frick, T. Prime, G.W. Tryon jr., and B. Walker. Size refers to number of letters in four classes, actual numbers indicated by colours.

William Greene Binney (Fig. 3) was the son of Dr Amos Binney and his wife Mary Ann. He was born on 22 October 1833 in Boston, MA. and his father was one of the founders of the Boston Society of Natural History and an well-known conchologist himself. Binney jr. entered Harvard College in 1850, struggled with his ill-health but finally graduated in 1857. He is known for his studies on American land and, to a lesser extent, freshwater shells, and especially for his careful studies on their anatomy; his joint studies with Thomas Bland on the lingual dentition and jaws of several groups returns in the correspondence below. For over thirty years he and Bland had a close friendship and together they published some 25 papers and books.

Forced by the effect of the weather conditions in Boston upon his health, he sought often a milder climate, especially in winter time. He visited in the 1850s Europe and resided some years in Paris, where he married Marie Louise Chamberlain. After their return from Europe they resided in Burlington, NJ where he died on 3 August 1909. His collection is partly in the Smithsonian Institution in Washington, DC, in the American Museum of Natural History in New York (GRATACAP, 1901), and in the Museum of Comparative Zoology in Cambridge, MA (FAXON, 1911). His bibliography was given in GRAY (1937). These notes are largely based on GRAY (1931).

Connecting two malacological communities

The centres of conchological and malacological work in Europe and North America were in the 19th century only loosely connected. Earlier contacts are known but relatively scarce (e.g., BREURE & TARDY, 2016; BREURE & BACKHUYS, 2017b; KABAT & COAN, 2019), mainly due to the dividing ocean and the difficulties in contact that were the consequence of it. Letters and packages took a long time to be delivered and sometimes were lost; personal visits were scarce and middle-men had to be used when available to secure important deliveries of material or messages. As a result contacts on both continents were more 'inwardly' oriented than bridging the Atlantic (BREURE & HEIBERGER, 2019). Crosse as Director of the *Journal de conchyliologie* must have sought actively to expand his network, also to the North American malacological communities. When he started his term of office in 1861, the only contact in the U.S.A. was with Temple Prime, a diplomat who had been based in several European countries⁽⁴⁾, but their correspondence was mostly on business matters. It was through him that Crosse came in contact with Thomas Bland in 1863. Bland, who was active in the Lyceum of Natural History in New York, also proposed to exchange periodicals (viz. the *Journal* versus the *Annals of the Lyceum of Natural History*). It was likely through his good friendship with Binney that the latter also entered in correspondence with Crosse a few years later. These

two men would write during nearly two decades 45 respectively 31 letters to Crosse, and were by far the most strong links of him with malacologists in North America (BREURE & AUDIBERT, 2017).

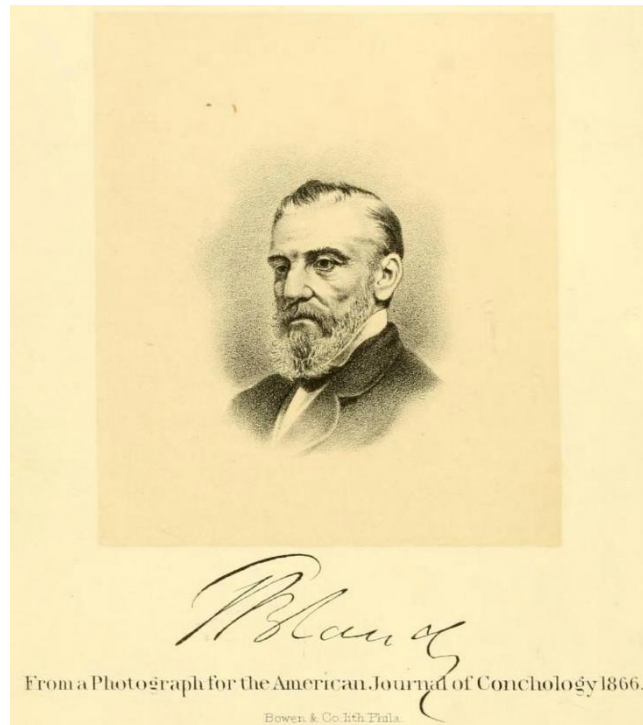


Fig. 2. Thomas B. Bland (after ANONYMOUS, 1866).

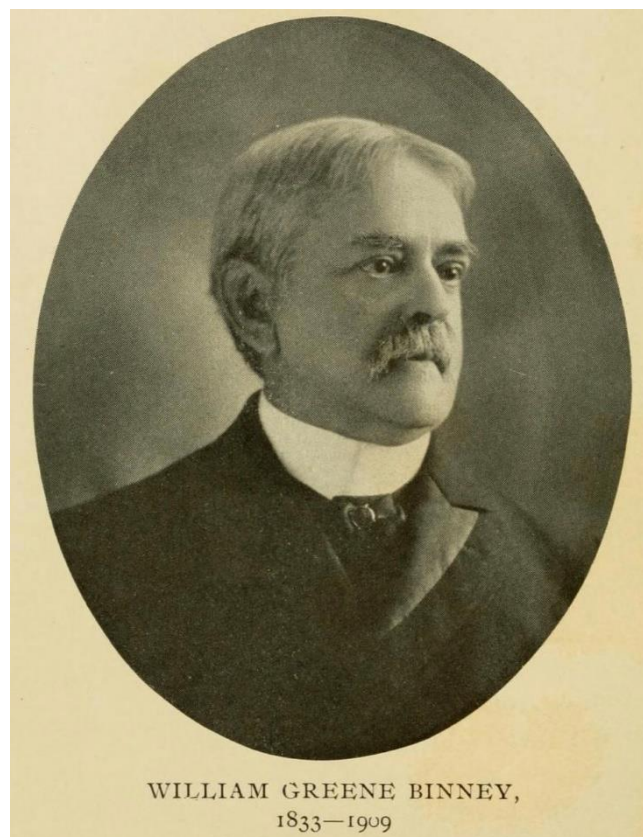


Fig. 3. William G. Binney (after GRAY, 1931).

Insights from the correspondence

The letters reveal that both Binney and Bland supplied frequently material to Crosse, either solicited or unsolicited. The letters from Crosse to them have not been preserved, but as far as lists are archived, it appears that Crosse only sent material in return in the beginning of their contact. Nevertheless it is remarkable how frequent material exchanges were mentioned in the correspondence of both men, and they were constantly very generous in supplying data and material to their European colleague. Competition in the scientific world of the 19th century was clearly less strong than nowadays. Besides exchanges of material (either dry or in alcohol or glycerine), also literature in the form of reprints were sent. Bland and Crosse exchanged the *Annals of the Lyceum of Natural History of New York* and the *Journal de conchyliologie* without charging each other. Sometimes reprints from an issue were already sent before the journal was officially published (e.g., letter Bland to Crosse, 24 July 1867).

As Crosse was relatively easy for them to reach (e.g., letter Bland to Crosse, 2 September 1867) it becomes clear that Crosse has acted as middle-man for further contacts to Germany. The good contacts between Crosse and Pfeiffer may illustrate this (cf. BREURE & BACKHUYS, 2017a for a similar case with Hidalgo). However, especially Bland sometimes did not send his material directly to Crosse but preferred to make use of visitors to Paris, or send his material via a middle-man. The role of Auguste Sallé⁽⁵⁾ deserves a special mentioning here.

The social circle of especially Bland was quite large, and in his letters lots of names were found of well-known and less-known persons with an interest in shells (see Appendix). Both Bland and Binney seemed to have some disdain for malacologists in their early career. Bland notes in his letter of 10 November 1873 “the name of Kobelt is little known in science”, while Binney was very outspoken in his letter of 5 April 1879: “Mr Dall is very young, and will greatly injure his reputation by publishing too soon. He belongs to the same category as Gabb, Gill, Tryon *ed id omne genus*. The whole lot are a nuisance, they reflect discredit on American science and do not advance truth”.

Mexican and West Indian molluscs

Paul Fischer and Crosse were invited by Henri Milne-Edwards to write the malacological part of the “Recherches zoologiques pour servir à l’histoire de la faune de l’Amérique Centrale et du Mexique”, also known in the short-hand form as ‘Mission au Mexique et Guatemala’. From their historical introduction (FISCHER & CROSSE, 1870: 2–7), it is clear they had only the Paris collections at hand, especially the material Fermin Bocourt had brought from his travels, and that material from other collectors was mainly described by foreign authors. For the work they had in mind they definitely needed more material and data, and the American correspondents were preferred suppliers due to their contact network on the American continent. Especially Bland sent Crosse material of undescribed species collected by others from his network, but they also discussed e.g., about a species that Pfeiffer had described in 1861 as *Clausilia* (?*Balea*) *taylori* from Lower California and Gabb in 1867 as *Cylindrella newcombiana*. Two years later Crosse and Fischer described the new genus *Berendtia* for this species. Both Bland and Binney supplied anatomical data, especially about mandibulae and radulae, either as reprints of their papers (e.g., BINNEY & BLAND, 1870), as material or slides, or as drawings. Fischer and Crosse regularly referred to them when they wrote their two volumes for ‘Mission au Mexique et Guatemala’.

Bland was very interested in West Indian terrestrial molluscs and devoted several papers to this fauna, especially the geographical distribution (e.g., BLAND, 1852, 1854, 1861, 1866). According to COOMANS (1974: 148), Bland visited once the island of St. Thomas. We have no further evidence that Bland travelled in the Caribbean, but we know that he was a close friend of Robert Swift; through him he came also into contact with Hendrik van Rijgersma on St. Martin. It is therefore likely that West Indian material reached Bland through this network of correspondents⁽⁶⁾.

The ‘Mission au Mexique et Guatemala’

CROSNIER & CLARK (1998) have published on the dates of publication of the different ‘livraisons’ which appeared between 1870 and 1902. At the end of the second part, a list of dates has been given for the 17 ‘livraisons’ by stating only the year. After bibliographical research, Crosnier & Clark were able to present precise dates for nine of the 17 ‘livraisons’. The correspondence in the Appendix reveals for one of the remaining a precise date. In a letter of 7 May 1873 Binney wrote to Crosse that he received “this morning ... the third part of your beautiful work on the Mexican shells”. If we assume this was mailed directly to Binney and we further assume a delay of 10 days for the transatlantic mail⁽⁷⁾, the date of publication of the third ‘livraison’ would be 26 April 1873 at the latest, but possibly earlier.

Although frequently reference is being made to receipt of other parts of this work in the correspondence by both Binney and Bland, the references do not allow to deduct a precise date of publication for the other 'livraisons'.

Discussion

The contacts between Crosse on one side and Binney and Bland on the other side of the Atlantic ocean can also be viewed in terms of the development of a polycentric network, in which the nodes are interpreted as an 'imperial centre' (Crosse) or as 'colonial peripheries' (Binney respectively Bland) (BASALLA, 1967; LATOUR, 1987). Their status can be defined in terms of scientific authority and social power (CHAMBERS & GILLESPIE, 2000: 223, 231), as well as "alignments of proximity and distance measured by strength of feeling, closeness of friendship and access to power" (PIETSCH, 2013: 4). To assess this we will focus on the start of the relationship between Crosse and Binney respectively Bland during the 1860s. Although Crosse started as editor in the footsteps of Petit de la Saussaye and Bernardi, and France was renown for its conchological authors, he may have attained some scientific authority during the 1860s by publishing a large number of papers on various groups. What else had he to offer to his American correspondents? When Bland initiated the exchange of journals he could readily offer to send him a copy of the *Journal de conchyliologie*. Moreover Crosse was in a better position to identify shells and acted as middle-man for contacts with Louis Pfeiffer, who was at that time the leading authority in land snails (Fig. 4). Crosse could also make use of material of several collectors (Boucourt, Sallé) to introduce eponyms for his new correspondents, as a means to build trust in the relationship and as a medium to underline his requests for exchange of material (BREURE, 2017). Yet his own collection must have been relatively small in the 1860s, and his requests for material from Mexico and the West Indies are only counterbalanced by a few return shipments of material of which we have evidence. From the first letter of Bland it is clear that personal contact played also a role in establishing the relationship. Temple Prime, a friend of Bland, was an American diplomat in Europe and must have known Crosse personally when he transmitted a letter from Crosse to Bland. When Binney, Bland's collaborator, visited Europe a few years later, he also met personally with Crosse. The resulting contact was cordially, just as the correspondence of Bland with Crosse. Our conclusion is that in the case of malacology, the bridging of the Atlantic was made possible mainly by 'closeness of friendship' and 'scientific authority' rather than anything else.

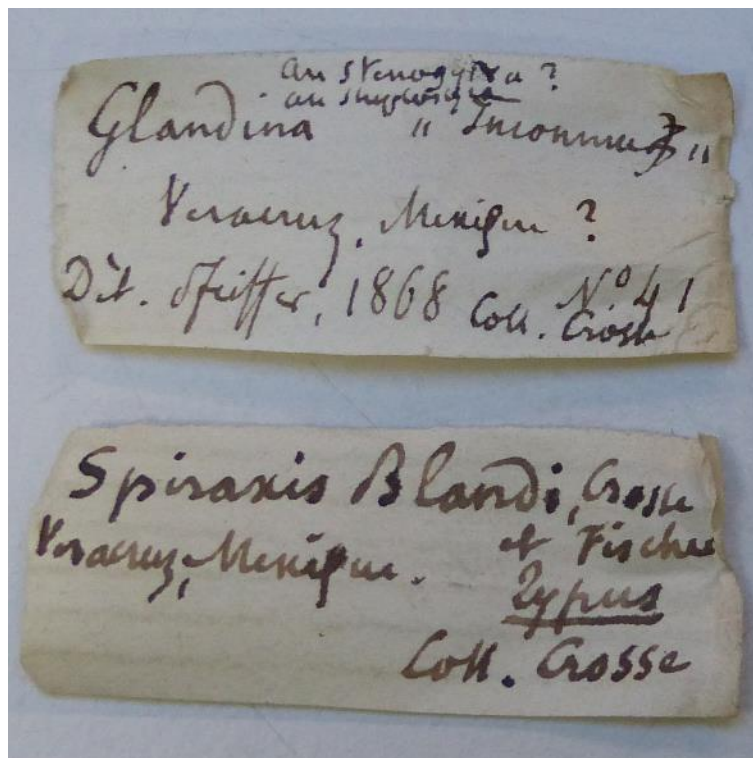


Fig. 4. Label in Paris museum showing material sent from Bland to L. Pfeiffer, and forwarded by him to Crosse who published the material as *Spiraxis blandi* Crosse & P. Fischer, 1877.

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Appendix – The correspondence

All letters were written in English and are here transcribed. Printed text in the letterhead is given between {}. All letters are in chronological order. Annotations are provided to give context to the reader in the notes at the end of the Appendix.

Bland to Crosse, 4 September 1863

108 Wall St. New York
4th September 1863

M. H. Crosse

Dear Sir,

My friend Temple Prime has placed in my hands your note of 20th June, in which you mention my name in connection with your intended monograph of the genus *Cylindrella*.

You wish to have specimens of the American species – there are only two or three which inhabit Florida and the adjacent keys, with specimens of which I can supply you. The species of Texas are rare, and you will more readily find them in Europe than here. In my cabinet is a single specimen only of *C. Goldfussi*. The species of Mexico are certainly not to be met with here – not at least in duplicate. I have a number of West Indian species of which I can give you specimens.

The genus *Cylindrella* interests me very much – several years ago I published in the Annals of the Lyceum a little notice upon the differences in their internal structure, giving figures of several. The Cuban species vary much in the number and character of their folds or twists on the columella or axis of the shells. I can give you a number of specimens opened so as to show the structure.

Please tell me in what shape your monograph will be published, and its probable cost, as I shall hope to possess a copy.

With respect to the Annals of the Lyceum I will let you have the two last volumes in exchange for your Journal de Conchyliologie for 1862 and 1863, and continue such exchanges.

I am, Dear Sir,

Yours truly

Thomas Bland

Bland to Crosse, 4 May 1864

108 Wall St. N.Y.
4th May 1864

My dear Sir,

Please pardon me not having replied sooner to your favor of 14 Feb., but I have not been well, and extremely busy.

I have delivered to M^r Prime a parcel containing the specimens of *Cylindrella* mentioned in the enclosed list, some of them opened to show their internal structure. You will observe that of many I give no names – they came to me from Cuba undetermined. Probably in Paris the species will be known, and I shall be glad if you can give me the names. Should I from other sources learn them I will advise you. These shells will I hope please you – I regret that it not in my power to supply more at present.

I have the last volumes of the Annals of the Lyceum ready for you & M^r Prime as well as myself are waiting for an opportunity to forward them.

I have not received from M. Bossange⁽⁸⁾ the Journal for 1862 & the three numbers for 1863, which you mention having placed in his hands. I do not know whether Bossange has any agent here to whom I can apply & who might forward for me to Paris the Annals destined for you.

By mail I forward my paper on the classification of North American Helices & also on the Geo-distribution of West India shells.

I have not at present been able to obtain any *Cylindrella* with the animals, although I have written to Jamaica for some especially for you.

I received & thank you for your Brochures Conchyliologiques.

I shall be glad to hear that the shells reach you safely & hope soon to forward the Annals – the further publications of the Annals shall be regularly sent to you.

I am, my dear Sir,
Yours very truly
TBland

Bland to Crosse, 13 September 1864

42 Pine St. N.Y.
13th Sep^t 1864

M. Crosse
Paris

My dear Sir,

I have been very ill for some weeks or could have forwarded sooner the 'Annals of the Lyceum'. I have today shipped the parcel by the steamer "Lafayette" of the new Havre line addressed to you, to the care of Mess. Iselin & Co of Havre, the agents of the steamer, who will I am assured forward the parcel to Paris. Should you not receive it please write to M. Iselin. I paid the freight to Havre.

In haste
Yours very truly
TBland

Bland to Crosse, 1 December 1865

42 Pine St. N.Y.
1 Dec. 1865

My dear Sir,

I have your favor of 20th October, and would have replied sooner, but have been extremely busy.

I agree with you in the determination of *Cylindrella excima* and *obesa* – the other may well have been described. I have now two species of *Cylindrella* for you from Mexico, which I will send by an early opportunity. Many promises have been made of species with the animal from Jamaica and I hope soon to get them – we have much to learn from the animals before attempting the classification of the species. I have asked especially for *Crossea* and *sanguinea* – also for *Mangeri*.

I believe I can let you have another specimen of *C. mixta*.

If you will do me the favor to send the parcel of land and freshwater shells of the French Antilles to Mess. Ph. Schloss & Co, Rue la Grange Batelière (Paris) addressed to me, to the care of M. Berolsheimer, to whom Schloss & Co will forward them for me to New York.

A friend of mine M^r C.M. Wheatley⁽⁵⁾ desires to purchase freshwater shells (not of Europe or America) – can you recommend him to any one or forward any list of species with prices.

Another number of the Annals of the Lyceum will be published during this month, which shall be immediately forwarded to you.

My dear Sir,
Yours very truly
TBland

M. H. Crosse

Bland to Crosse, 9 February 1866

42 Pine St N.Y.
9 Feb. 1866

Mr. H. Crosse
Rue Tronchet n° 25 Paris

My dear Sir,

I lately sent you copy of the new number of the Annals of the Lyceum, which I hope reached you safely – by mail.

I forward by my friend Mr Berolzheimer, who leaves this tomorrow, a little box containing the *Cylindrella* mentioned in my last letter. You will find *C. sanguinea* in alcohol. I have not yet succeeded in getting from Jamaica *C. mangeri* and others.

May I hope soon to receive the promised shells from the French Antilles?

Very truly yours
Th. Bland

Crosse to Bland, March 1866

Envoi de coquilles des Antilles françaises fait à M. Th. Bland, le Mars 1866 (Fig. 5).

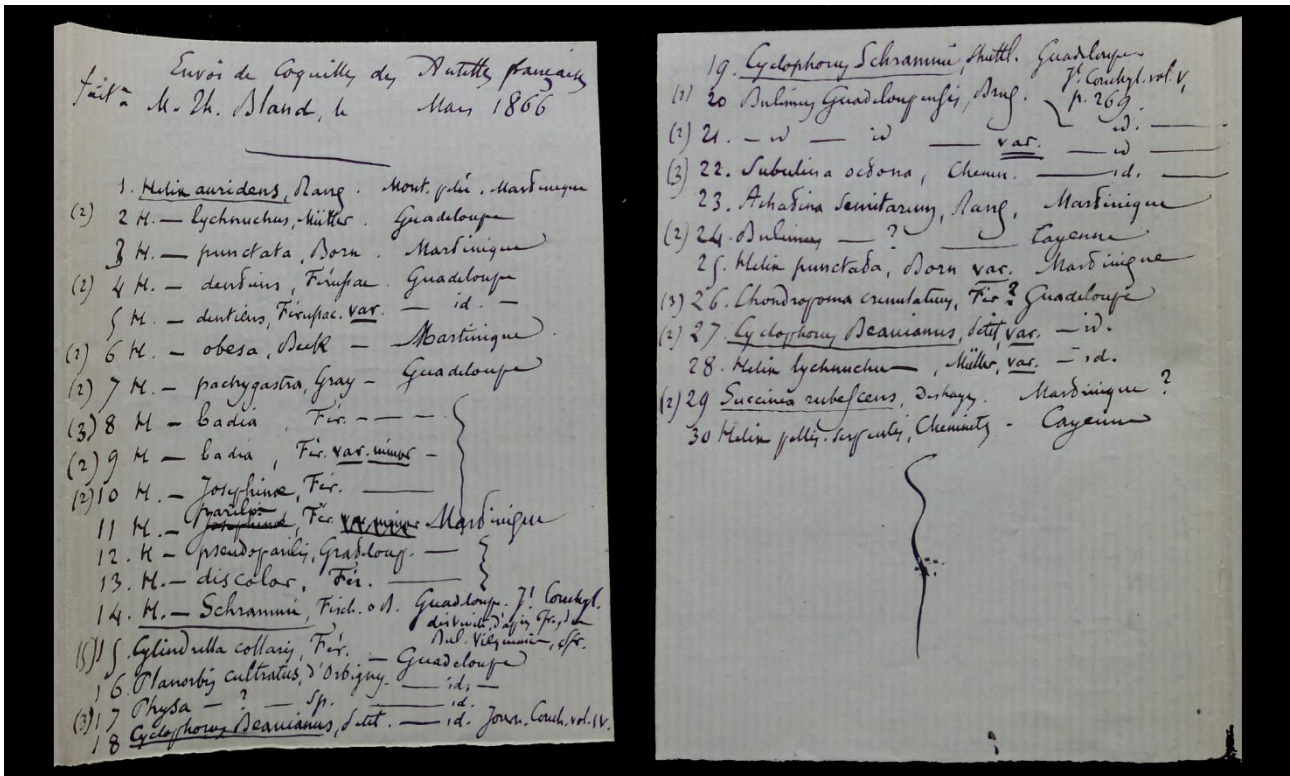


Fig. 5. List of species sent by Crosse to Bland, March 1866 (13.4 x 20.7 cm; archive Backhuys).

Bland to Crosse, 22 May 1866

42 Pine St. N.Y.
22 May 1866

M. Crosse
My dear Sir,

I may pardon my not having sooner acknowledged receipt of your favor of 20 March, and the shells forwarded through Mess. Schloss & Co for which I am much obliged – they are extremely interesting to me.

At any time when you have other species at your disposal they will be most acceptable.

I am sorry that the *Cylindrella* (in alcohol) were not in good condition. I have written to Jamaica for more and to several parties especially for *C. mangeri* – soon I hope to have them for you. No new specimens or species of *Cylindrella* have lately come to my hands, but I anticipate shortly having some from Mexico.

I have received the Journal – in a few days another number of the Annals of the Lyceum will be published and copy shall be forwarded to you.

For your offer of shells from Madeira &c I am greatly obliged – they will be very acceptable.

If you desire to have any West Indian land shells I can supply some from Barbados – and also from the Bahamas, from the latter I have lately received species which I believe to be new.

Believe me, my dear Sir,
Yours very truly
ThBland

Bland to Crosse, 27 November 1866

42 Pine St. N.Y.
27th Nov. 1866

M. Crosse
My dear Sir,

I have been very much occupied or should sooner have replied to your favor of 7 Sept. By my friend Mr Beroldsheimer I sent to you a week ago a small package of West Indian and other land shells. I keep a list of them and from time to time will forward more. On some of the tickets you will find a number (*Pupa* N° 81 &c) – this refers to a list of shells sent to D^r Pfeiffer for determination. I expect very soon to hear from him, and then you shall have the names of the species.

I shall be much obliged by you sending the Madeira shells destined for me to the care of M.M. Schloss &Co., who will forward them.

I could risk now give you a specimen of *Gundlachia*, but very soon I shall have some and will with much pleasure send them to you.

Thanks for the names of the *Cylindrella* – some I had determined. All my efforts to obtain *C. mangeri* with animal have thus far failed, but I will continue my endeavor.

With this I send extra copy of my last paper from Tryon's Journal⁽⁹⁾ – you will I think have found it interesting.

I am, my dear Sir,
yours very truly
T Bland

Crosse to Bland, 15 December 1866

Envoi fait à M. Th. Bland, le 15 Décembre 1866

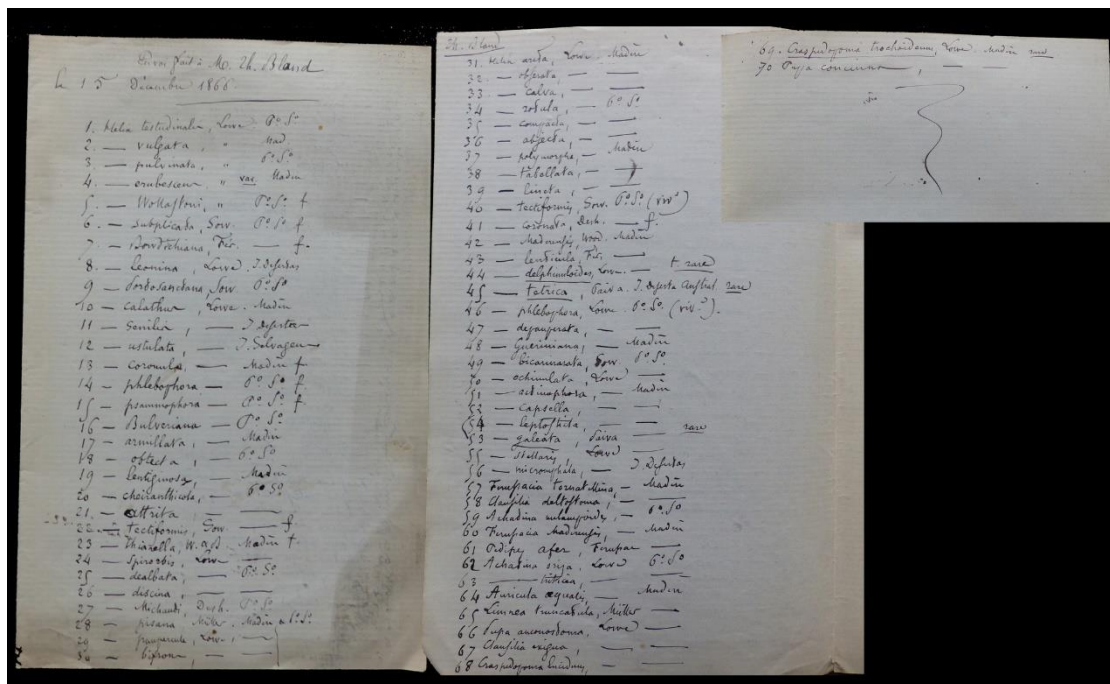


Fig. 6. List of species sent by Crosse to Bland, 15 December 1866 (20.7 x 13.5 cm; archive Backhuys).

Bland to Crosse, 12 March 1867

42 Pine St. N.Y.
12 March 1867

M. H. Crosse
My dear Sir,

Pray pardon my not having replied sooner to your last letter but I have been extremely busy.

I have received the Madeira shells and am most obliged to you for them. I shall be pleased to send you more West Indian and other species – most unfortunately I have mislaid the list of those which I last forwarded. Can you send me the list or copy, and I then will immediately pack another parcel. Canary shells will be acceptable.

I regret extremely that all my efforts to get *C. mangeri* with the animal have thus far failed – Jamaica is in a sad condition and the people so engaged in affairs as to neglect Natural History &c.

I have again tried to enlist parties in the matter and sent specimens of the the shells of which the animals are especially wanted.

I cannot believe there is any mistake about *Cyl. Agnesiana* – I took the teeth out myself from a partially decayed specimen and marked the name. I have another fragment I think, which you shall have, and I have urgently asked for more specimens.

I am glad that my paper on Distribution pleased you – the subject is of great interest. With you I cannot accept the terrible account of Subgenera with which the Conchological Literature is burthened [*sic*, burdened]. We know comparatively few of the animals – some Subgenera are based on peculiarities of the animal, some of the shell, others on both. Those do most service to [illegible] who study distribution, and divide the species of well marked faunas into natural groups.

One of the Madeira shells interests me very much – I forget the name at this moment – it is coarsely ribbed and has several internal rows of about three teeth, having similarity of plan to our *H. interna*.

By an early mail I shall have the pleasure of sending you my Photograph, and it will be gratifying to me to have yours in return.

I am, my dear Sir,
your very truly
T Bland

Binney to Crosse, 4 July 1867

[Paris] 239 rue St. Honoré
July 4/67

M. Crosse

My dear Sir

If you find the enclosed worthy, please give it a place in your Journal. If not, please return it to me.

I think I had better say nothing about the four-eyed *Pompholyx*. It is rather a sore point with me, having once (Terr. Moll. U.S. IV *Helix Columbiana* or *labiosa*) copied an equally foolish observation of a Californian naturalist.

Mr Bland begs me to say that he is preparing a letter and some shells for you.

I hope to leave Paris on Saturday – in looking back on my visit here I shall always remember your kindness to me. Come over to our country and give me a chance of returning it.

Very truly yours
W.G. Binney

Bland to Crosse, 24 July 1867

42 Pine St. N.Y.
24th July 1867

M. Crosse
My dear Sir,

I have been negligent about sending you shells, but now try to make up for it. I had mislaid, but lately found the list of what I sent last. I forward a box, containing the species mentioned in the annexed list [(Fig. 7)], by M. Thomas⁽¹⁰⁾, who will sail for Brest in a few days. The shells will I hope please you.

The species N° 18 from Eleuthera and N° 25 from Inagua may be new – I have not been able to determine them. *Pupa* N° 22 from Inagua I do not know – and the fine one N° 26 from [...] Island puzzles me. It is

very like *P. regia* Benson. By all means describe any new species – the above have not been sent to Dr Pfeiffer. I find it extremely difficult to get shells determined by him – he has had some from me for a year and I cannot even get a letter from him. I am ready to pay any expenses – Can I get him to forward parcel for me to your care – he has the address of a mercantile house at Fürth who would send on to me, but I have no success in getting my shells. I have frequently species which are probably new, but I hesitate to describe least I should only make more synonymy. Shall I send such species to you to be dealt with by you or by Dr Pfeiffer as you may decide.

You will see that I supply you with more *Cylindrella* – I have not even get succeeded in getting from Jamaica the animal of *C. mangeri* but still hope to do so.

There are several Mexican & other Helices which I very much desire to have – are they to be had by exchange – *H. yucatanica* Mor. *Couloni* Shuttl. *Chiapensis* Pfr. *becruris* Pfr. and *Dysoni* Shuttl.

Another number of the Annals will shortly be issued – it waits for the Index to the Volume – meanwhile I send copy of a paper from it by Mr Krebs.

I enclose my Photograph and shall be very happy to receive yours.

I am my dear Sir,
yours very truly
TBland

Yesterday I received the new number of the Journal & am much pleasure with your notice of my paper.

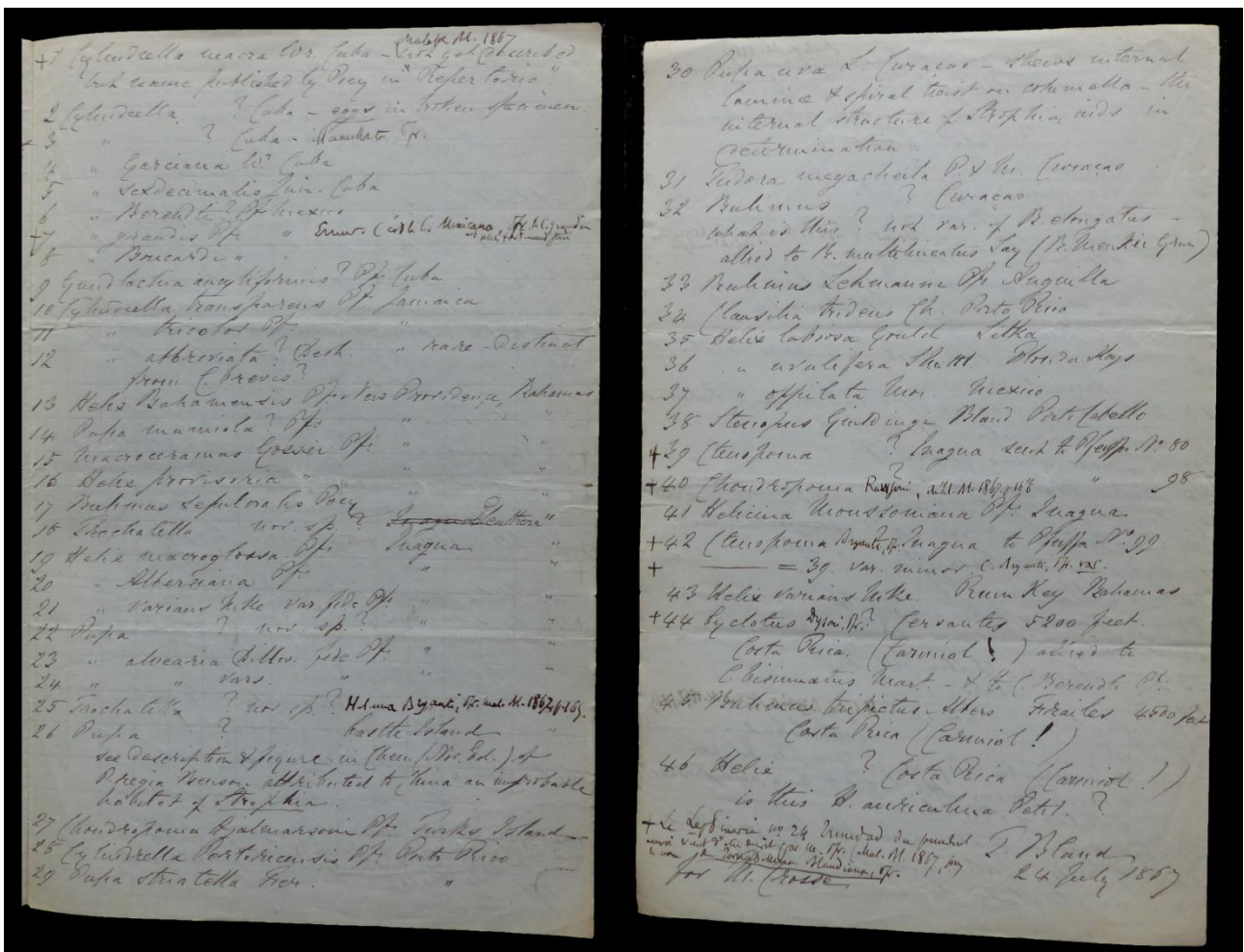


Fig. 7. List of species sent by Bland to Crosse, 24 July 1867 (21 x 13.5 cm; archive Backhuys).

Bland to Crosse, 2 September 186742 Pine St. N.Y.
2^d Sept. 1867M. Crosse
My dear Sir,

Not long since I wrote you with list of shells forwarded to you by M. Thomas. He returned here unexpectedly and I put more shells for you in the package. M. Thomas left yesterday for Brest, in the "Theraize" via Halifax, and should arrive in four or five weeks.

I find that my "N^o 3 *Cylindrella* ? Cuba" is *C. illamellata* Pfr., "22 Pupa ? nov.sp.? Inagua" cannot be *P. Bryanti* Pfr. Mal. Bl. 1867. Pfeiffer has not returned my types or list, but the shell which I sent him certainly was not the same as my N^o 22 to you.

N^o 39 *Ctenopoma*)

42 ") Inagua

from my list to you is *C. Bryanti* Pfr. Mal. Bl. 1867.

I added to the parcel the following species

Cylindrella ventricosa Gund. Cuba*Brooksiana* " "*porrecta* Gould "

and the lingual bands in alcohol of *Cylindrella interrupta* Gund. and *C. perlata* Gund, both from Cuba. I found accidentally living specimens in my cabinet.

Yesterday I found *C. ventricosa* living and have the lingual band for you.

I did not examine those of *interrupta* & *perlata*, sent by M. Thomas, but shall be glad to hear if they differ from *C. scaeva* – both are of other forms.

I sent you long ago *Cylindrella fibrata* – it is I believe *C. scabrosa* Gund.

C. Lescaillei is *C. Turcasiana* Gund.

The following are the names of those species which I formerly sent with numbers only, viz.

740 is *C. Heynemannii* Pfr.767 is *Wrighti* Pfr.768 is *Hilleri* Pfr.

I hope to know from you an early report on the shells.

To say I received land shells from Trinidad – among them specimens of a *Diplomatina* [*sic*]. I submitted one long since to D^r Pfeiffer, without operculum, and he admitted that it was excessively like *D. Huttoni*. This in connection with assurance of *Ennea bicolor* at Trinidad, is very curious. M^r Guppy of that island has sent a notice about this to the Ann. & Mag. of Natural History. It is easy for me to send to Paris than to Germany – can you readily (at my cost) forward a little parcel to D^r Pfeiffer & receive any thing for me in return. Pray let me know.

I am, my dear Sir,

Yours very truly

TBland

Bland to Crosse, 25 November 186742 Pine St. N.Y.
25th Nov. 1867M. Crosse
My dear Sir,

I have your favor of 20th October and am glad that you received the parcel of shells forwarded by M. Thomas.

D^r Pfeiffer has had a number of shells of mine for about a year – I notice descriptions of several were new in the Malak. Blatt. and presume that by this time he has determined all of them and awaits an opportunity to return them. I enclose a few lines to him, requesting that they may be forwarded to you, so that they can be sent to me in your intended parcel of Canary shells. I pray you to let me know what expenses are incurred and I will gladly repay the amount.

My only wish is to promote science and I leave it entirely to you to consult D^r Pfeiffer or not on any species which I send. I thank you sincerely for your kind offer in that matter – I wish that all naturalists evinced the same honorable spirits. You can when in doubt avail yourself more readily than I can, of D^r Pfeiffer's opinion.

I hope soon to send you more species from the Bahamas and elsewhere. It is most provoking that I cannot get *C. mangeri* with the animal – I wait anxiously for replies to my late letters to Jamaica & still hope to be successful.

The probability certainly is that the *Ennea* and *Diplommatina* have been introduced accidentally into Trinidad.

By this mail I send you the last number of the Annals of the Lyceum – the preparation of the Index (which was primarily my labor) caused delay in publication.

I shall be glad to learn your views as to the *Trochatella* of the Bahamas & the *Pupa* – of the latter the number of forms in those islands is remarkable. I have lately received more & will send you a suite of them. I am quite at a loss to determine them.

I am, my dear Sir,

Yours very truly
TBland

Binney to Crosse, 16 January 1868

Burlington, New Jersey
United States
Jan. 16/68

M. Crosse

My dear Sir

I owe you a thousand apologies for not earlier thanking you for so nicely translating my little note on *Paludina* &c in your Journal. I have been very busy since my return. I was obliged to take the work of preparing Dr. Gould's new edition of Invertebrata. There is no pay, and Stimpson could not command his time as I can. So he declined, and the Governor of Massachusetts appointed me. There are \$4000 already voted by the legislature and \$4000 more will be, no doubt, added this winter. The original copper plates are lost. Morse is drawing the shells on wood. The Nudibranchiates, Tunicata, Cephalopoda &c are to be done by chromo-lithography, the first time, is it not, that that style has been used in conchology. You shall soon have some proofs to show you what we can do on this side of the water – when we have money to pay for it – for *cela coute*, as you say. An edition of 1200 copies of 11 colored plates will cost \$4300 – and wood cuts, text &c will be as much again. I hope you will be pleased with the work, of which you and Dr. Fischer will have an early copy.

Things are quiet here conchologically. The Smithsonian does nothing yet to publish my Land Shells – now three years ready for the press.

I find all the American conchologists very much dissatisfied with Tryon's Journal, material, style, price, everything.

My friend Mr Bland is offering his very extensive suite of N.A. land shells to the Brit. Mus. for £ 109 – a rare chance.

I look back with great pleasure to my visit to Paris. Do remember me to Dr. Fischer and above all to that dear M. Deshayes – I wish we had such a conchologist in our country – but science knows no nations he belongs equally to us as to *la belle France*.

Command me in any way and
believe me very truly yours

W.G. Binney

Bland to Crosse, 10 February 1868

42 Pine St. N.Y.
10th Feby 1868

M. Crosse

My dear Sir,

I have your favor of 18th Dec. & also the January number of the Journal. I am obliged to you forwarding my letter to Dr Pfeiffer & hope that he will send to you my shells which has had so long. I notice that from time to time he described the new species in the Malak. Blatt. Any thing given to M. Schloss will be transmitted to me.

The fauna of the West Indies, just now of the Bahamas, especially engages my attention & I am anxious to have the species which I sent to you and Dr Pfeiffer determined without delay, so that I may report to my correspondents and encourage them to make further collections – to do so successfully is always difficult. Your assistance will be most valuable and it is gratifying to know that the promotion of science is our common object.

Cylindrella is with you a speciality and I am glad to assist you in every possible way.

I will send you all the Mexican *Cylindrella* which are left in my Cabinet. I would particularly call your attention to *turris*, *clava* and *felicosta*. The two former you refer to *Eucalodium* – so far as internal form is concerned the three would appear to belong to the same genus. I noticed in a paper in the “Annals” (which you have) the curious character of the column. Surely these species may be separated from *Ghiesbreghti* & other which have a simple fold on the column – if from the animal they belong to *Eucalodium* the form of the axis may well be described in the diagnosis of the genus. I also send you *C. pilocerei*, which came from Mr Geale⁽¹¹⁾ – opening it I found the animal dried – I softened it in boiling water, took it out as best I could & put the pieces in glycerine – you will I think get the lingual band. *C. Pfeifferi* I discovered living & extracted the animal, putting it also in glycerine. Opening *C. ventricosa* of Cuba & *C. Trinitaria* of Trinidad I found them living & I send them to you – also *C. Bahamensis* which has the animal with it. The existence of a maxilla in *Eucalodium* is extremely interesting. I yet like to obtain the animal of *C. mangeri* & constantly write to Jamaica about it.

As to *C. Swiftiana* & *C. Berendti* – they are certainly much alike – the former however is described as having 21 whorls, 18 mill. long. 2 1/2 diam., *C. Berendti* 14 whorls, 12 1/2 mill. long. 2 1/2-3 diam.

I send you an additional number of Bahamas shells [(Fig. 8)] – those islands promise a rich harvest – I purpose publishing in the Annals a list of them so far as known to the present time. A good monograph of *Strophia* is a great desideratum. You will notice that a number of the species sent have not been determined by me – *Helix* 63 and 81 I particularly desire to know and *Pupa* 22 of previous parcel – I have no other specimens and must request you to return them as well as the few others marked to be returned, several of which I found with Dr Bryant’s shells belonging to the Boston Society of N. History. By all means consult Dr Pfeiffer when you are in doubt. As to these shells and several of those forwarded by M. Thomas I shall be extremely glad to be advised. Have you arrived at any conclusion about the large Castle Island *Pupa* (*regia*?) N° 26? – if not, it should be called *P. gubernatoria* – discovered by Governor Rawson⁽¹²⁾. The *Strophia* are most puzzling – each or most of the species, besides variations in size, have smooth & striate forms – white and variegated. Cuba & the Bahamas are the headquarters of the genus.

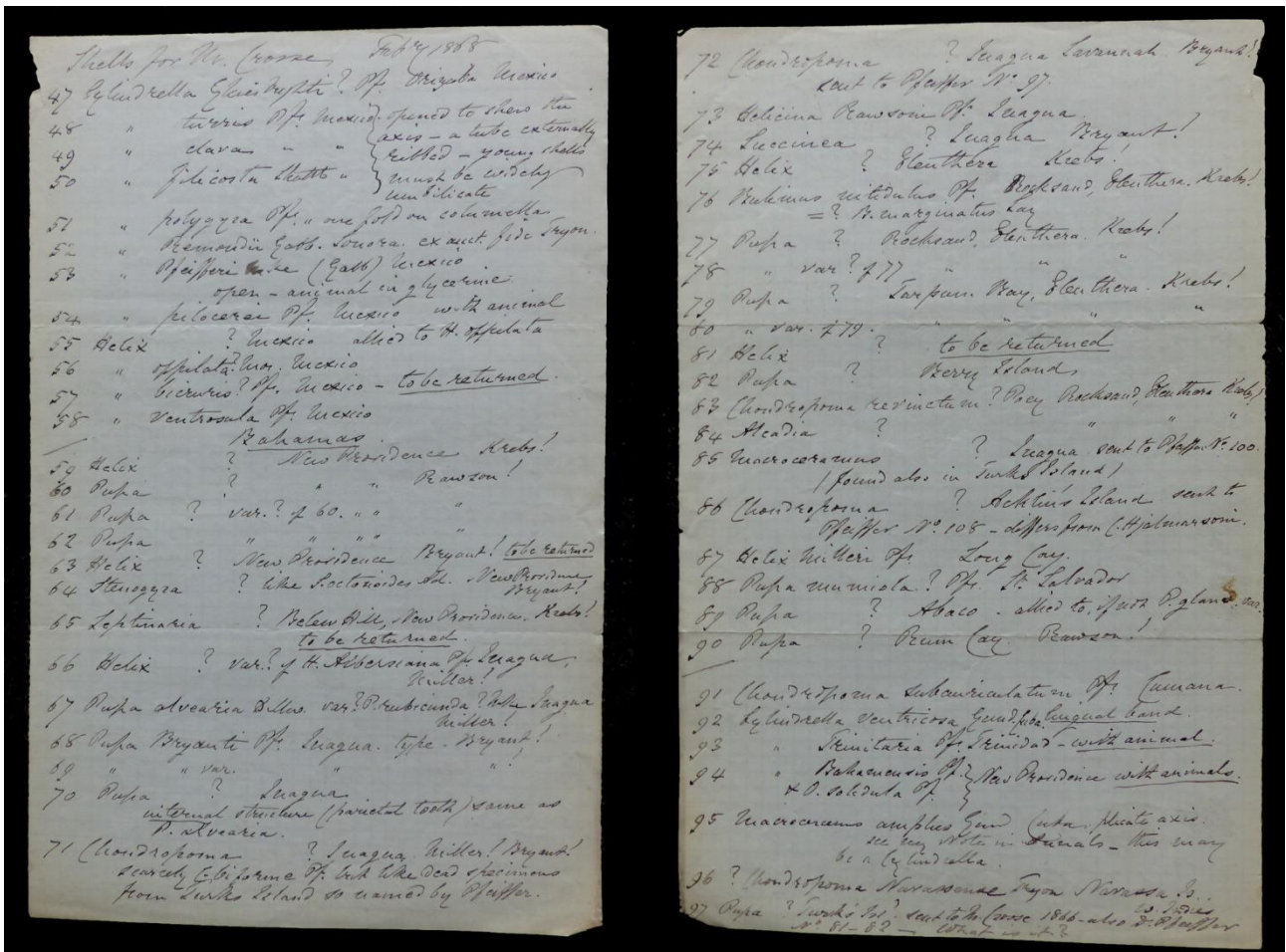


Fig. 8. List of species sent by Bland to Crosse, 10 February 1868 (20.6 x 13.3 cm; archive Backhuys).

I received your Photograph with many thanks – your message to Mr Prime was delivered.

You ask from what localities I wish to have shells in exchange. Possibly you may have duplicates of New Caledonian *Bulimi* – other African *Helices* so like the *Helices* of the French West Indies.

Is not *Helix Amori* Hidalgo syn. of *H. Gibboni* which I found in New Grenada?

Can you obtain for me the first part of Malak. Bl. for 1866 pages 1-32 – I have the rest & shall be happy to pay the cost.

I am about to publish notes on the land shells of Trinidad. Mr Guppy has made many errors. Should you communicate with M. Thomas pray offer to him my regards.

I am my dear Sir

yours very truly

TBland

P.S. I like to be able to send you a specimen of *Cylindrella Newcombiana* from Lower California.

11th Feb. I have just received a letter from an old correspondent in Jamaica who was intimate with Prof. C.B. Adams – now I really hope to get the animal of *C. mangeri* – I will do all I can to assist you, as I have already, in your study of the Genus & its allies – you cannot really oblige me more than by determining or having described the West Indian shells which I sent to you.

Bland to Crosse, 4 March 1868

42 Pine St. N.Y.
4th March 1868

M. Crosse

Paris

My dear Sir,

I lately wrote to you sent by express a box of shells, which I hope you have received safely.

At present I have no advice of any parcel through M. Schloss.

Sometime since Professor Orton⁽¹³⁾ went to Ecuador, especially to that region of the Upper Amazon, under the auspices of the Smithsonian Institution and one of our Colleges. Prof. Orton has returned and brought with him a few interesting shells which have been referred to me. I have declined, having neither time or opportunity to study them, and have suggested that these shells be sent to Europe for determination. I explained that where the number of specimens collected would permit, at least one should be placed at the disposal of the party asked to examine them.

I mentioned your name in connection with the subject, stating particularly that in case of your own doubt having we wish, save to advance science, you would consult Dr Pfeiffer.

I beg you to let me know immediately if the shells referred to may be sent to you, all expenses of transmission being paid. It seems to me that as a means of adding value to the Journal (additional opportunity of making new species known) and of adding to your own collection, you may be glad to receive & examining them. I should not propose such a course if the shells were numerous, but they are really few.

In my letters I have freely spoken of the great disadvantage arising from the great delay of Dr Pfeiffer, and even his failure to write me reply to letters – such delays are likely to prevent any sending of species to Europe, and which could be worse to the description here of many already described there.

We mutually assist each – to which extent it may answer your purpose or suit your convenience to receive shells, in small numbers, for determination and description of new species, having liberty to retain a typical specimen when possible. I must beg you to inform me.

I am, my dear Sir,

your very truly

TBland

Crosse to Bland, 18 March 1868

Par M. Schloss, rue de la Grange Bateliere 13

Envoi fait à M. Bland le 18 Mars 1868 [(Fig. 9)].

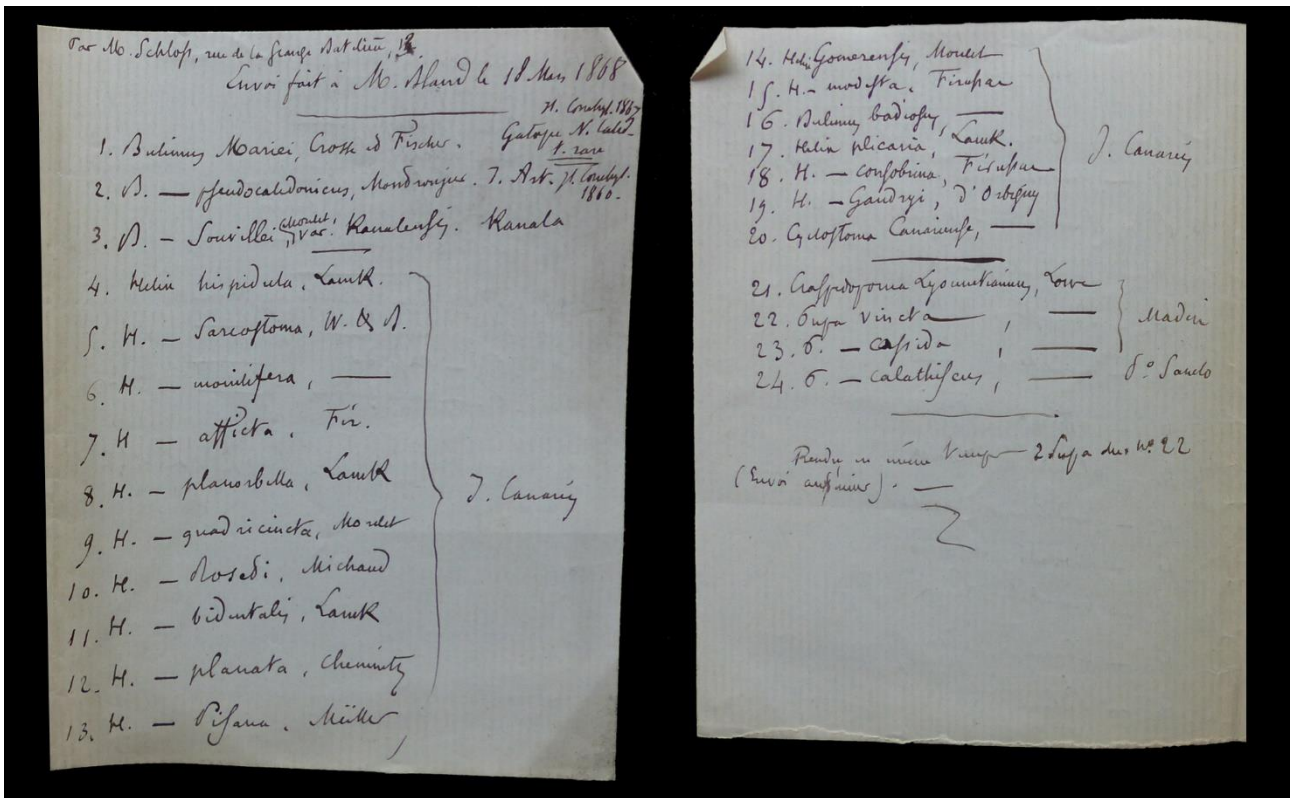


Fig. 9. List of species sent by Crosse to Bland, 18 March 1868 (13.4 x 20.7 cm; archive Backhuys).

Bland to Crosse, 3 April 1868

42 Pine St. N.Y.
3^d April 1868

M. Crosse
My dear Sir,

I had the pleasure of receiving your favor of the 17th and was glad to learn that my box of shells had safely arrived. I am moreover glad that you have my shells from Dr Pfeiffer & that they are with those which you kindly sending me in the hands of M. Schloss.

With respect to determinations of my shells - *Pupa secumana* Castle Is. - this seems to be established - I had Sowerby's figure before me - *P. regia* is I believe the same - I must learn more of Benson's type.

Pupa 22 - *Inagua* - this surely cannot be var. of *P. Bryanti* - I did not wish the specimens to be returned - you shall have more & I shall examine the species.

Helix 21 - *varians* var. With you I doubt this. I shall look with interest for your report on the other Bahama shell - I shall then be able to finish my paper which the Boston Society will publish with figures - pray then do not delay the matter.

It is decided that Prof. Orton's shells, or such as I cannot determine, shall be sent to you. I will attend to that during the present month.

Since I last wrote I have made some most interesting discoveries. I obtained a specimen of *Cylin. Newcombiana* & suspecting it to be alive treated the shell with warm water &c. At last the animal showed himself, very weak, collected in Feb. 1867. I have his jaw and teeth - he does not belong to *Eucalodium*. The jaw of your species as described is finely striated - has a slightly indicated median projection at the inferior margin and a rounded support beyond the edges of the superior margin - this I understand to be like the jaw of *Succinea*, which puts *Eucalodium* in Mörch's division Elasmognatha. The jaw of my shells has projecting ribs with corresponding denticulation on the margin - but I think no support. The so called *C. Newcombiana* would then go in Mörch's division Odontognatha - the teeth on the lingual band are in rectangular rows & much of this shape central - laterals formula 32-1-32 x 126. I am having drawings executed and wood cuts for publication in the Annals. I have a specimen of the shell for you, and shall send copy of my paper so soon as possible.

Ten days ago I received from Jamaica a couple *C. Blandiana* (*mangeri*-group) - from the dead animals I got the lingual bands - of these teeth I am having a wood cut - they are of same type as *C. scaeva* - with two cusps

– the side of view almost precisely the same – the angle of the rows much the same – no jaw – at least I could find none. So *C. mangeri* belongs to *Cylindrella* not to *Macroceramus*, formula 55–1–55 x 145.

I will send you one of the lingual bands & shell from which it was taken. If you would like to have the stereotypes of my figures for use in the Journal I think the Lyceum will authorise it. I now have lingual band of *C. Agnesiana* – part of one I sent you in 1866 & you thought I had made a mistake.

Believe me

Yours very truly

TBland

Pray assure Dr Pfeiffer of my thanks – it will afford me pleasure to send him shells for his Cabinet & through you for his opinion when necessary.

I annex tracing of jaw & teeth of *Newcombiana* & teeth of *Blandiana* – how do the teeth of yours agree with the former? I establish a new Genus for *C. Newcombiana*.

Bland to Crosse, 12 May 1868

42 Pine St. N.Y.

12th May 1868

My dear Sir,

I have your favor of 17 March and the box, including that from Dr Pfeiffer, for which I am much obliged. The note on the Castle Is. *Pupa* is as I have already stated very interesting, and I cannot but agree with you as to the determination.

I have written to Benson about *P. regia*.

This day I have forwarded a box to you by Express – it will leave by the “Ville de Paris” on the 16th instant. As to its contents I refer you to the enclosed Notes and Catalogue [(Fig. 10)]. You will find *Eucalodium? Newcombianum*, send the animal without jaw & teeth – another time I will send you the jaw for comparison. I obtained a second one which is very distinctly crenulated at the cutting edge. I send you also teeth & animal of *C. Blandiana* of the *mangeri* group – and you will find several *Bulimi* from Lower California including two new species which I am about to describe.

I look very anxiously for a report on all the Bahama shells sent for determination. I am obliged to ask you to return several as they are single specimens and do not belong to me.

In a little while the Prof. Orton shells will be forwarded to you.

I wrote to you as to the jaw & teeth of *C. Newcombiana* & teeth of *C. Blandiana* with rough figures.

I have the Journal – we are now publishing a part of the Annals.

Hoping to hear of & of receipt of the shells and for early report.

Believe me

Yours very truly

TBland

Coturniculus by Dr. Pfeiffer
 No. to M. Cross

72 *Chondropoma* *lignum* Pfe. var. *minus*
 Laogua

71 " *lignum* Pfe.

87 *Chondropoma* *gualmarsoni* Pfe. Parks. Is.
 86 " " *Schubertii* P.
 the sculpturing of 86 is different but
 Pfeiffer says both are *gualmarsoni*

14 *Pupa* *maritima* Wein. New Prov.
 fide Cross

97 *P. costata* Pfe. Links to
 M. Cross thought this *P. mammata* Pfe.

88 *P. cunningiana* Pfe. St. Salvador

21 *H. varians* both Laogua
 Agree with M. Cross in thinking this
 a different species

85 *Macrocarum* *gossii* Pfe. var. *Laogua*
 & Links Is.

Notes for M. Cross. May 1868

22 *Pupa* *Laogua* - var. of *Magante* Pfe.
 surely this cannot be - you retained
 the specimens - I now read more which
 you can check. The apical whorls of
P. Magante are always smooth.
 In *P. Bryanti* the columnar teeth
 is continued on the axis & the parietal
 tooth is continued in two well defined
 revolving laminae - see the specimen
 now sent. In *P. albescens* (to which
P. Magante is closely related) the
 columnar teeth and parietal teeth
 are continued in the same way
 but higher up towards the
 apex, that is to the point where
 the spiral - see specimen herewith.
 This is not the case in *Pupa* 22.
 Do me the favor to send some of these
 to Dr. Pfeiffer.

I am very anxious to have your report
 on the following -

86 *Helix* *Laogua* - which seems to
 come between *Abhoriana* & *Disculus*

81 *Helix* *Glauthera* (to be returned -
 being the only specimen)

59 & 75 *Helix* *New Providence* perhaps the same
Glauthera related to *H. subquadrata*
 Philist.

63 *Helix* *New Providence* - to be returned
 - the only perfect specimen

64 *Stenogyca* *artemidos* & *H. Adams*
 84 *Alcedia* *Glauthera*

65 *Leptinaria* *New Providence*.
 to be returned - the only perfect specimen
 - this is perhaps a *Mulinus*.

60-61-62 *Pupa* *New Providence*.
 I now send a couple more

70 *Pupa* *Laogua* - may be small
Babucaria. I now send one
Pupa *spec.*

77-78 *Glauthera*

90 *Pupa* *Buenos Ayres*. I send more
 just received - if you can, let
 Dr. Pfeiffer have a couple.

88 *Pupa* *St. Salvador*. Pfeiffer says
 this is *P. cunningi* Pfe. - it is considered
 as *P. cunningiana* Pfe.

89 *Pupa* *Abaco*. I reported this
 with Smith & Glass, but believe
 it to be *P. Mulinia* var. I send
 more.

I add the following

100 *Helix* *Long Is.* this is I think
 the *Caribbean* Wein. Consider form
 of *Mulinus*.

101 *Pupa*. *Pezomachus* - peculiar aperture
 in shape - constant in 3 specimens

102 *Helix* *St. Salvador* - var. of *H. Prichardii*
 nearer to *gallipronus*.

103 *Helix* *Crooked Is.* taken ~~from~~
 finely sculpted. I believe it is *H.*
Mulinia Pfe.

104 *Helix* *Waltrop's Is.* allied to
H. disculus
 to be returned

105 *Cyrtostomus* *Weyssii* Wein
Crooked Is. to be returned?

106 *Chondropoma*
French Cay to be returned

107 *Chondropoma*
Unyaguana to be returned
 perhaps 1, similar to *Laogua*
 compare *confusa* Pfr.

Stenogyca (jaw & teeth removed) of
Gualmarsoni? *Newcombianum*. *Low. Cal.*

108 *Cyrtostomus* *Newcombianum* Gabb. " "
Gualmarsoni?

109 *Cyrtostomus* *irregularis* Gabb. " "
 the best I have

110 *Mulinus* *spinifer* Gabb. " "
 type. Amer. Journ. Conch. figure

111 *Mulinus* *sufflatus* Gabb. " "
 embryos shells taken from the animal
 which is therefore ovoviviparous.

112 *Cyrtostomus* *Agnesiana* (N.S.) *parvula*
 embryos shells taken from the animal
 which is therefore ovoviviparous.

113 *Cyrtostomus* *Blairiana* Pfe. var.
 shell, teeth & animal.

114 *Mulinus* *var. sp.* *Low. California*
 Gabb. embryo shell in *H. spinifer*. this
 distinct & *Pezomachus* describe it.

115 *Mulinus* *var. sp.* ? *Low. Cal.*
 new I believe to be a shell describe it
 do you know it?

116 *Mulinus* *fulvipes* *Low. Cal.*

Fig. 10. Notes and list of species sent by Bland to Cross, 12 May 1868 (21 x 27 cm; archive Backhuys).

Bland to Crosse, 30 May 1868

42 Pine St. N.Y.
30th May 1868

M. Crosse

Paris

My dear Sir,

This will be presented to you by my friend M^r W.A. Haines of this City who is about to visit Paris &c. M. Haines has for many years been an enthusiastic Conchologist, and is the possessor of the finest private Cabinet in this Country⁽¹⁴⁾.

Pray aid M. Haines in gaining access to the Jardin des Plantes and other collections – for any attention shown him I shall be extremely obliged.

I am, my dear Sir,

your very truly

TBland

M^r Haines has a little parcel for you from me.

Bland to Crosse, 1 June 1868

42 Pine St. N.Y.
1 June 1868

M. Crosse

My dear Sir,

Sometime since I wrote to you, describing the discovery of another *Eucalodium* in *Cylind. Newcombiana* – also as to the teeth of *C. mangeri*.

On the 13th May I sent to you by Express a box of shells – some for examination, other for yourself – this has I hope reached you.

My friend Mr W.A. Haines (who has the finest private Cabinet in this Country) will leave for England on Wednesday next, and very soon make his appearance in Paris.

I have given him a few lines of introduction & he is the bearer of a little parcel for you, containing

Teeth of *Cylindrella lateralis* Paz Cuba

you have now teeth of species belonging to nearly, if not quite all the different forms.

Jaw of *Eucalodium Newcombianum*

for examination & comparison

& to be returned

Cylindrella flexuosa Pfr. Jamaica

This is my only specimen – the type – you can take a figure from it & return the specimen to me.

I am anxious to hear about the Bahama shells.

Yours very truly

TBland

Bland to Crosse, 31 August 1868

42 Pine St. N.Y.
31st August 1868

M. Crosse

My dear Sir,

I must confess that I am much disappointed at your silence. In May last I sent you a lot of shells which have not been acknowledged – among them *Cylindrella Newcombiana* Gabb (*Clausilia Taylori* Pfr.). By Mr Haines I sent you my type of *Cylin. flexuosa* & jaw of *Newcombiana* to be returned, but I have not heard of their receipt.

I hope to have report on the Bahama shells, and without it cannot go on with my paper.

I sent you my paper on that *Cylin. Newcombiana* & teeth of *C. mangeri*.

The Journal of July reached me and I notice that you describe *Eucal. Blandianum* – the shell I presume which I sent as *Cylin. Ghiesbreghti?* in February of the present year.

I have shells collected by Prof. Orton, mentioned to you already but thought it useless to forward them while you have the Bahamas shells in hand.

M. Haines on his return may bring me some parcel from you – in all events I beg you to inform me about the Bahamas shells – possibly you have sent some to Pfeiffer & wait his opinion.

I have more *Cylindrella* with animal from Jamaica on the way here. I have one of *C. rosea* (or perhaps var. of *cylindrus*) – to my astonishment I found jaw like, at least *Macroceramus* type. I wait for more specimens, as

really I almost fear that there may be some mistake, arising from the use of glass tubes, in which specimens may have been mixed. I believe not, but the occurrence is so strange that I cannot think of publishing until the discovery is corroborated by further evidence.

I now almost doubt the propriety of putting *Cylindrella Newcombiana* in *Eucalodium* – assuredly it is not a *Clausilia*, nor a *Balea*.

I shall be much obliged by you informing me as to whether Pfeiffer's new volumes of his Monograph have been published – I am extremely anxious to have them – can they be sent to me by mail, ~~or by Express~~ – if I knew the cost I would remit it. So soon as I can see my friend here I will ask him for an order on Schloss & Co for money to cover the cost. Pfeiffer informed long ago that one volume was finished but I cannot hear of it through booksellers here.

For the last two months, during our intended hot weather, I have been quite unwell, but being better have much array of work to complete – hence my anxious inquiry as to the Bahama shells.

I send you the new number of the Annals.

very truly yours
TBland

Bland to Crosse, 7 October 1868

42 Pine St. N.Y.
7th October 1868

My dear Sir

This morning I received your parcel of 20 Sept. and was really glad to hear from you. M. Haines has returned but I have not yet seen him.

I wait patiently, I was going to say impatiently for the report on and return of the Bahamas shells. I have a number of the jaws & teeth of different genera & shall publish figures.

I have now to announce to you a very important discovery – no less than the positive & certain existence of a jaw in *Cylindrella*. Hitherto dead & dried up animals have been examined, but recently I have received specimens with the animals in glycerine & have most carefully examined them. I take the animals and immerse them in diluted liquor potassic leaving them in for several days. This reduces the tissues to a pulp from which the lingual band with the muscular envelope of the buccal mass attached, to which the jaw adheres, can readily be separated. I place these parts in a glass tube with still more diluted Liq. Pot. which cleans them & then with a lens the structure of the jaw can be examined. I drain off the liquid carefully, wash the lingual band & jaw in water, shaking the tube which holds them & pouring off the water, introduce alcohol.

The jaw of *C. rosea*, as to which I doubted is a certain fact. I have several examples of a very similar jaw from *C. sanguinea* & *C. brevis*. I also have from *C. Trinitaria* and *C. mangeri*! I have *C. elongata* & *gracilis* for examination & *C. Bahamensis* & have little doubt as to the existence of jaw in the Genus. ~~In this~~ There is no doubt whatever as to the jaws in the species thus far examined. The jaw is very thin & delicate & would readily escape detection in dead (dried) and perhaps alcoholic specimens. I will send you several of these jaws.

Thus we have to unsay what we have said. The subject of the classification of *Cylindrella* & *Macroceramus* must be considered – Pfeiffer is about right & Albers & v. Martens wrong, not to mention Mörch. This discovery will be announced in the next number of Tryon's Journal in my paper on the Land shells of Trinidad, Dominica & Grenada. I shall publish a paper quite interesting.

I am persuaded that much remains to be noticed in the Mexican shells in that direction, and believe that several of the small helices found by Berendt belong to *Stenopus* or are allied to it.

Pray acknowledge receipt of the box [(Fig. 11)].

yours very truly
TBland

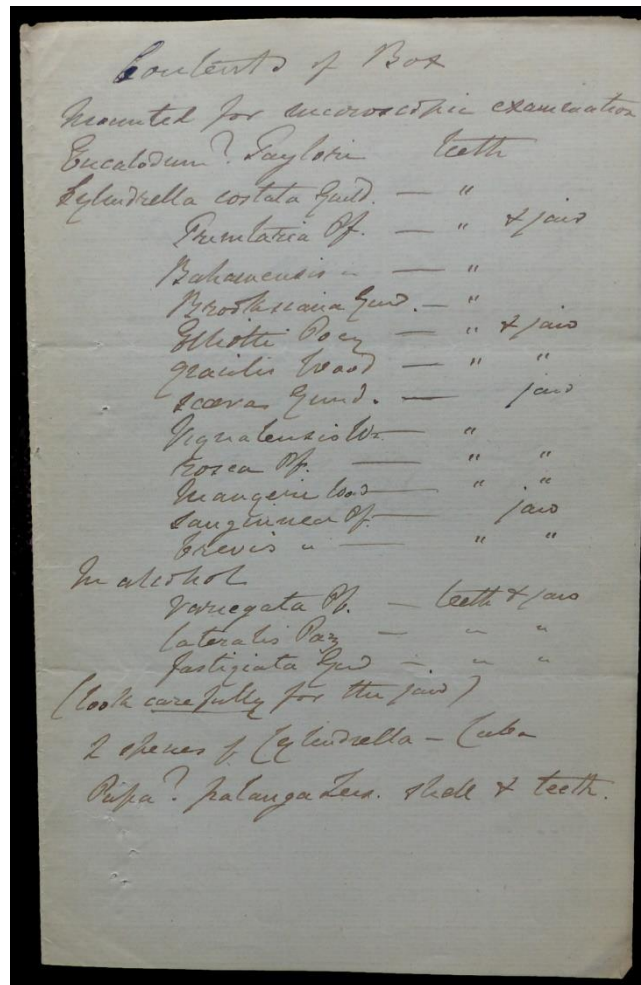


Fig. 11. Contents of box sent by Bland to Crosse, 7 October 1868 (20.6 x 13.3 cm; archive Backhuys).

Bland to Crosse, 12 October 1868

42 Pine St. N.Y.
12 Oct. 1868

M. Crosse

Rue Tronchet N° 25

My dear Sir,

I lately wrote to you about the jaw of *Cylandrella* & having now further evidence communicate it to you.

I have the jaw of the following:

Cylandrella *mangeri*
 rosea
 sanguinea
 brevis
 elongata
 gracilis
 Trinitaria
 Bahamensis

and aim having them mounted for the microscope & shall publish figures.

The similarity in form of shell of some of the large Mexican *Cylandrella* with the *C. rosea* group of Jamaica, and the difference in teeth & jaw is very remarkable.

I will send you specimens of the jaws.

in haste

yours very truly
TBland

Binney to Crosse, 14 October 1868

Burlington, N.J.
Oct. 14/68

My dear Sir

In reading your last number of the Journ. de Conch., I read with interest your notes on the lingual dentition of the European *Glandina*. The presence of the series mediana I can also testify to in two of our North American species – *Gl. truncata* and *Gl. albersi*. I enclose you figures of their lingual membrane, from my forthcoming Land & Fresh Water Shells of N.A. Part I.

My book is progressing – about half (150 pages) have already been stereotyped. I hope to finish this winter.

The new edition of Gould is also progressing favorably. I shall from time to time send you proofs of it, as it passes through the ~~text~~ press. When it is finished, I hope to go to Paris to present in person copies to my friends.

Believe me very truly
Yrs
W.G. Binney

Binney to Crosse, 12 November 1868

Burlington, N.J.
Nov. 12/68

Mons. Crosse

My dear Sir

I found lately some ms. of Mr. Say, and enclose a specimen, hoping it will interest you.

I have been during the last summer photographing with the microscope many lingual ribbons of Pulmonates. I am greatly pleased with the result. As a general thing no one negative will show every part of a tongue. The focus will now allow this – but by having several views taken, you can beautifully illustrate every part. I have begged Tryon to publish some proofs in his Journal.

One thing is very satisfactory. By putting a negative in the magic lantern you can throw a picture on the wall greatly enlarged, and study it at your leisure. I give below a rough tracing of several teeth of *Cylindrella costata* from a magic lantern. Notice the very small upper cusp to the laterals – and the abortive uncini.

Yrs very truly
W.G. Binney

Bland to Crosse, 16 November 1868

42 or 34 1/2 Pine St. N.Y.
16 Nov 1868

M. Crosse

My dear Sir,

I have apprised you of the discovery of the jaw of *Cylindrella* – beyond all doubt. It is very interesting, and I am glad that it has been made before publication of your Monograph. Whether you are making progress with or have abandoned it I do not know. It is important with reference to classification. Very soon I shall be able to send you a copy of my paper (for Tryon's Journal) on the shells of Trinidad &c. in which I give figures of the jaw & teeth of *C. Trinitaria*.

I now have, mounted for microscopic examination, and to give facilities for figures, the following,

<i>C. Trinitaria</i>		jaw & teeth
<i>brevis</i>	"	"
<i>gracilis</i>		" "
<i>sanguinea</i>		" "
<i>mangeri</i>		" "
<i>rosea</i>	"	"
<i>Bahamensis</i>	"	
<i>Elliotti</i>		" "
<i>Brookseana</i>	"	"
<i>Vignalensis</i>	"	

costata ”
Blandiana ”

I want to make these available to Science, but am at loss to know how best to do it.

Morse⁽¹⁵⁾ is about the only artist who can draw such objects, but he is most fully occupied & likely to be so. Then such work is very expensive here – it has cost some money to have the objects mounted.

If I send all to you, will you give a plate with figures in the Journal, and describe them. Figures of all may not be necessary, – the jaws are on much the same general plan – there are several modes of arrangement (& forms) of teeth. Teeth of other species I have already sent you.

Do you wish to reserve the teeth for your Monograph & when do you begin to publish it?

The jaws would be matter for an interesting paper, with figures, in the Journal.

Of any paper so published & plate, I would like to have a few extra copies.

I enclose photograph [(Fig. 12)] of the jaw of *C. rosea* – Tryon has the negative & will perhaps publish it, with notes on the use & value of Photography in such matters.

D^r Gray⁽¹⁶⁾ writes me much interested about this & asks me to publish figures. As you have *Cylindrella* in hand I make my offer just to you – early publication I desire. If you accept the offer I will present the objects to you.

I have the October number of the Journal & am much pleased with your paper on *P. decumana* I have one spec[imen]. somewhat variegated – the jaw & teeth I shall publish in my paper on the Bahamas shells. I regret that the Governor of the Bahamas, M^r Rawson, has not [been] credit[ed] in your paper for the discovery of the shell. I had the species from him.

When are we to have the 6th Vol. of Pfeiffer & I must ask as to progress with my Bahamas shells.

Is [illigible] *Septinaria?* *Bulimus monodon* Ad.?

I shall be glad to have your reply.

Yours very truly
 TBland

Rue Tronchet N^o 25

[P.S.] The *Cylindrella* jaws are very delicate – you will see that parts of it (*C. rosea*) have curled over & are shown double.



Fig. 12. Photograph of the jaw of *Bactrocoptis rosea* (L. Pfeiffer, 1844) (6.1 x 8.8 cm; archive Backhuys).

Bland to Crosse, 20 January 1869 [incomplete]

42 Pine St. N.Y.
 20th Jan^{ry} 1869

M. Crosse
 My dear Sir,

I have your favor of 12th Dec. and should have replied sooner but have been most occupied and by no means well.

With respect to the jaw of *Cylindrella* I published a short note with figure in my paper on the Trinidad shells, of which I send you copy. I am extremely glad to learn that you have not abandoned your intention of publishing a Monograph of the Genus. The discovery of the jaw enables you to adopt with certainty the classification which you have already suggested. You have now moreover the teeth, if not, the jaws of species of most of the different groups.

I have much pleasure in sending you all the specimens which I have mounted for the microscope (retaining only one or two duplicates). I gladly give them to you – in your hands they will be made available to promote scientific knowledge – publish in the Journal some at least, reserving others for your Monograph.

I do not believe with Mörch in a classification based on the jaws, but we have much reason to believe in the value of both jaws & teeth as aids in the matter.

The enclosed list will show you what I send – a number mounted, and also some in alcohol. You have the jaw of *Eucalodium? Taylori*. I now provide the teeth also.

You will also find the teeth of *Pupa palanga* Less. from Mauritius, with the shell from which I took the animal. This clearly is not a *Pupa* – I did not find the jaw & looking at the *Testacella* like teeth believe it had none. Surely this must be put rather with *Ennea*. There are some interesting figures of jaws & teeth in Mal. Blat. of August 1868. If you desire from time to time to publish such things I will send you such as I have or obtain – they are unquestionably of very great interest.

You ask me for any land shells of Mexico and Guatemala – I have very few – scarcely any in duplicate, but to aid you & M. Fischer in a work much desired & which must be of great interest I will send nearly all I have collected by Berendt, including *Proserpinella* & will endeavor to get more. I will forward these very shortly. Mr Binney has some and I think he would send them to you for examination – to be returned when your purposes are answered. I will see what he says to such proposal.

M. Rawson left New York to England today – no longer Governor of the Bahamas, he has been appointed Governor of Barbados, and promises diligence in collecting shells there and the neighbouring Islands for me.

With the jaws &c. I send two species of Cuban *Cylindrella* which I do not know.

I look anxiously for the Bahamas shells & the sixth volume of Pfeiffer.

Thanks for your paper on the Mexican shells – the discovery of *Petenia* (with mucous pore) is
[end of letter missing]

Binney to Crosse, 6 September 1869

159 Beacon St. Boston
Sept. 6/69

My dear Mr Crosse,

I have been passing the summer at Newport, and have now come to this city to finish up my new edition of Gould's Invertebrata. I am happy to say that I am quite near printing – actually correcting the Index – all the woodcuts and plates are finished. So in a few months I hope to be able to send you and M. Fischer copies of my book. I shall return to Burlington in a few weeks.

While at Newport I worked a great deal at lingual membranes employing the same process of microscope, photograph and magic lantern of which I wrote you last summer. I enclose you a few specimens of the results of labor.

Glandina rosea – a photograph, answers for itself.

Pompholyx effusa – a photograph focused to show uncini only.

The outline figures are photographed from magic lantern sketches of photographs and are greatly reduced. I propose in some way to photograph these figures on to stone, wood or steel – and thus publish them.

I send a duplicate proof in case Mr Fischer would like one.

These photographs were all taken by my friend, Mr Sam Powel of Newport.

I will, of course, send you a copy of my description of these and other linguals.

Yrs very truly

W.G. Binney

Binney to Crosse, 20 October 1869

Burlington New Jersey
United States
Oct. 20/69

My dear Mr Crosse

Will you have the kindness to tell me who is the best bookseller in Paris to whom I can consign some copies of my new edition of Gould's Invertebrata? At the earnest request of many friends here I have been ~~pers~~ decided to have one hundred extra copies printed at my own expense. This is to prevent the work being utterly inaccessible to conchologists as it otherwise would be. There are only fifty copies given me for distribution, which will go but a little way to supply the demand. I have to take a considerable risk and am anxious to know

how best to dispose of a few copies in France. Of my finally being refunded of all expense I have no doubt, but it will take time.

Is Baillière as good as any?

I shall have the pleasure of giving copies to yourself and Dr Fischer, as also to M/srs Deshayes, Gassies, and LacazeDuthiers⁽¹⁷⁾, who was polite to me at the Museum.

I hope in some five or six weeks to get my book out.

Have the kindness to accept the enclosed and believe me,

very truly yrs

W.G. Binney

Binney to Crosse, 20 April 1870

Burlington, N.J. United States

April 20/70

My dear Mr Crosse

I enclose second of exchange of your little account of Journal – though in these days the first is almost sure to be enough.

In the 'Ville de Paris' from New York last Saturday, the 16th, I mailed you a copy of "Invertebrata". I shall be anxious to hear of its safe arrival.

I sent you a few days ago a copy of my recent paper on lingual dentition.

Nothing new to report on shells. I hope soon, however, to have something of interest to you.

Yrs very truly

W.G. Binney

Bland to Crosse, 3 June 1870

42 Pine St. N.Y.

3^d June 1870

M. Crosse

My dear Sir,

I have your favors of 3 & 18 May, and find that M. Schloss has returned the Journal intended for me to you. The copy of Drouët reached me and by M^r Temple Prime, who will leave for Paris next month, I will send you the 5f.85 and with many thanks.

You send me a list of the American Land Shells which you want, and I will immediately select all I have in duplicate and send them by M^r Prime, with any other shells which may interest you. I have not lately received any more from Mexico or Guatemala – have a few freshwater species which you shall have.

The copies of the article on *Cylindrella* and other papers which you have put in the box for me will be very acceptable.

I shall be glad to have any duplicated which you can spare of land shells from the French West Indies and any other shells (land) at your disposal in exchange for the American & other species to be forwarded by M. Prime to you.

You can now forward the box returned by M^r Schloss to my address by the American-European Express? or keep it until you have added the shells for which I now ask & then forward the whole.

The *Strophia* are indeed most difficult to identify, and will certainly be properly classified unless someone, with abundant supply of specimens will study the whole genus.

Prof. Orton is extremely anxious to have all his shells returned, such as were marked to be returned, with notes on the others, as he contemplates publishing a list of them.

Hoping that I shall be able to let you have by M^r Prime a number of species which will be acceptable to you.

I am My dear Sir,

Very truly yours

TBland

I forward another number of the "Annals"

Bland to Crosse, 29 June 1870

42 Pine St. N.Y.
29th June 1870

M. Crosse
My dear Sir,

M^r Temple Prime left yesterday, I believe for Paris, and is bearer of a box for you, containing the shells whose names are annexed.

Suffering very much from the great heat of the weather, I was unable to look out & pack more species for you – but shortly will do so. I fear I have little or nothing from Mexico – I sent you, I see from my notes, the *Melania*, 2 or 3 species from the Isthmus of Tehuantepec.

The pretty *Bulimus* from Tobago I have not yet described but gave it the MS name of Rawson, being indebted for it to Governor Rawson of the Windward Islands.

As mentioned in my last I shall be glad of any species from the French West Indies especially. Have you duplicate of *B. chrysalis* Pf. *Lhermienieri* Fisch. and *limnoides* Fer.

I am my dear Sir,
yours very truly
TBland

Shells sent to M. Crosse by M. Temple Prime
28 June 1870

United States

<i>Vitrina unipeda</i>	<i>Helix Columbiana</i>	
<i>Pfeifferi</i>		<i>exoleta</i>
<i>Hyalina viridula</i>		<i>albolabris</i>
<i>rudulata</i>		<i>jejuria</i>
<i>ferrea</i>		<i>mobiliana</i> (vera?)
<i>compacta</i>		<i>devia</i>
<i>intertexta</i>		<i>profunda</i>
<i>ligera</i>		<i>harpa</i>
<i>luterua</i>		<i>reticulata</i>
<i>Macrocyclus concava</i>	<i>B. pallidior</i>	
<i>Helix alternata</i>	<i>Mac. Kieneri</i>	
<i>auriculata</i>	<i>Ruf. badia</i>	
<i>uvulifera</i>	<i>Lucc. Haydeni</i>	
<i>Posteltiana</i>	<i>Higginsii</i>	
<i>mooreana</i>	<i>luteola</i>	
<i>Jacksoni</i>	<i>Nuttalliana</i>	
<i>Huzardi</i>	Z. <i>fulginora</i>	
<i>burkentiana</i>	<i>laevigata</i>	
<i>cereolus</i>	<i>mornata</i>	
<i>pustula</i>	<i>Elliotti</i>	
<i>pustuloides</i>	<i>gulatus</i>	
<i>otenotrema</i>	<i>suppressa</i>	
<i>pirsuta</i>	_____	
<i>maxillata</i>		
<i>appressa</i>	<i>Physa</i> ?) Isth. of	
<i>palliata</i>	<i>Planorbis</i> ?) Tehuantepec	
<i>inflecta</i>	<i>Bul. Rawsoni</i> Bland MS	
<i>monodon</i>		Tobago
" (<i>Leaii</i>)		
<i>tridentata</i>		
<i>fallax</i>		
<i>introfereno</i>		
<i>pennsylvania</i>		
<i>Mitchelliana</i>		
<i>clausa</i> var.		
<i>clevata</i>		
<i>multilineata</i> (var.)		
"		

Bland to Crosse, 8 August 1870

42 Pine St. N.Y.
8th Aug. 1870

My dear Sir,

Some weeks ago I forwarded a box of shells to you by our friend M. Prime, who has no doubt delivered it to you. In the hurry of packing the parcel I omitted to place in the one dollar gold due to you. Subsequently being quite unwell, I forgot my indebtedness to you. I have, however, written to M. Prime & requested him to pay you on my account.

The shell I hope pleased you – in a little while you should have more of the North American species.

I shall be glad to receive your parcel.

Permit me to express to you that in the present war my wishes are with France.

Yours very truly
TBland

M. Crosse

Bland to Crosse, 17 August 1870

42 Pine St. N.Y.
17th Aug. 1870

I was glad to receive your favor of 3d Aug. – by this time you have a note from me, apologising for my omission to put the dollar due to you with the shells in charge of Mr Prime, and explaining that I had requested him to hand it to you.

His address is at M. P.P. Palmer, Avenue de Paris N^o 17, Versailles – pray communicate with him.

The detention by Dr. Pfeiffer of Prof. Orton's shells is unfortunate, but cannot be avoided.

It will [illegible] me pleasure to receive your Journal, and I thank you for your promise of the shells from the French Antilles if you obtain them.

With this I forward another number of the Annals. I received the Journal for July.

Yours very truly
TBland

Binney to Crosse, 10 February 1871

Burlington, New Jersey
United States
Feb 10/71

My dear Mr Crosse

I have all along delayed writing you until I could give you my most hearty congratulations on the successful termination of the war. Now that I am forced most reluctantly to acknowledge that my hopes were so ill founded I can only write to express to you my sympathy. How it has happened that the cruel fate of war has reversed all my calculations I cannot understand. I was sure your side would carry everything before it, and that your armies would march triumphantly to Berlin and peace. However I may have erred in my judgements, I have been a faithful ally of France, fighting valiantly your battles with my tongue, and crying "*vive la France*" in spite of Sedan.

Independent of my personal sympathies, which are wholly on the side of France, I have a vivid remembrance of the conduct of Prussia in 1866. I was in Germany during that short war, and saw what outrageous defiance of right and law Prussia showed in the treatment of Hanover, Hesse, Saxony, Nassau &c. Never in the world history has there been a clearer case of pure greed of territory, territorial aggrandisement, as shown by Prussia – never such unprincipled means of acquiring it.

Looking upon it now I see in Prussia nothing but a military despotism – the only hope of liberty is in France. How free England can look calmly on is a mystery to me – she is losing her only possible ally for the future – and giving all Europe in the hands of Russia and Prussia.

I think in the beginning the American people thought the war provoked by Napoleon – and were on the Prussian side – and the press tried to talk German victory to please the large German vote of our country. But now all parties see through the barbarous designs of Prussia and regret the sad state of France.

This is only this moment that I have read the remarks of Agassiz – which I enclose to show you that science at least is on the right side.

What you have in store for you I cannot imagine but what I wish you is relief from the Barbarians at present – and future revenge on them.

Yrs very truly

W.G. Binney

Bland to Crosse, 19 May 1871

42 Pine St. N.Y.

19th May 1871

M. Crosse

My dear Sir,

I pray you not to consider that my silence has been caused by want or sympathy or friendly feelings. I received your favor written at the end of August last – then followed several disasters – I contemplated writing when peace was assured with Germany, but the distressing struggle, now I trust about to be closed, commenced. A few days ago I had the pleasure of reading your letter to our friend Mr Binney & was glad to learn at last of the personal safety of yourself and family.

Let me assure you that I feel deeply with and for France and with earnestly hope that when the dangerous and reckless [illegible] are put down, that a happier era will commence.

I had missed the Journal very much and trust that very soon it will be in your power to resume its distribution and publication.

For some weeks I have not been well, but still am always at Natural History work.

I have several numbers of the “Annals” for you, also copy of a Paper which I have lately published in the Physical Geography & Geology of part of the West Indies, in connection with Land shell distribution – of that paper & of one by WBinney and myself on the Genus *Pineria* I forward by this mail & hope they will reach you safely. The first mentioned paper will I think interest you very much.

With respect to the “Annals” it is better perhaps that I wait until I hear from you.

You ask Mr Binney about Mexican shells – he has not I think received any lately. I have in my cabinet not a very great number of species from Mexico – but being anxious to aid you with reference to the work which you have in hand, I will on hearing from you that this reaches you, send you a list of them, and any which you want shall be forwarded if not for your Cabinet at least for your examination.

In time you will receive from Dr Pfeiffer the few shells sent for Prof. Orton – I shall indeed be happy to find you again pursuing Science uninterruptedly.

With good wishes & regards

Believe me

Very truly yours

TBland

Bland to Crosse, 6 July 1871

42 Pine St. N.Y.

6th July 1871

M. Crosse

Paris

My dear Sir,

I lately wrote very fully to you, addressing you at Vernon par Marche & from whence you wrote to Mr Binney. I also sent a copy of my late paper in the Physical Geography of the West Indies.

I mentioned that I had delayed writing as I could not do so with any great satisfaction during the late disastrous events. I received yesterday [illegible] number of the Journal with infinite pleasure & most sincerely hope that better times are in store for France.

With respect to Mexican shells I offered in hearing from you to send you a list of species in my possession with a view to you indicating those which will be use to you – any such are at your service. I now forward late numbers of the Annals of the Lyceum.

Mr Temple Prime will leave New York for England and Paris this week and to him I have entrusted a parcel for you, of which I will now describe the contents.

After your description of *Gonospira* [illegible] I sought to obtain for you the Mauritius species of so called *Pupa*, believing that most if not all of them belong to *Gonospira*. I succeeded in obtaining one, a species I do not know – the teeth are the same as in *G. palanga*. I send you to Mr Prime shell with animal & also the teeth mounted (for examination) by W. Binney. Not long since the animal of *Anostoma* was described in the Journal and the jaw of the animal, but not I think the teeth. I send you both jaws & teeth also mounted by W. Binney.

In your valuable paper on dentition of *Cylindrella* you mention not showing the dentition of *Gongylostoma* – I am glad then to send you the lingual band of *C. lateralis*, showing that it belongs to [illegible] – an example of the shell you will also find.

I received from the Mauritius a mollusks labelled *Parmacella Mauritian* – W. Binney examined the teeth, jaw & also the shell. I send you animal, teeth & jaw & shells, with W. Binney's figures & copy of his notes. Both he & I wish you to keep all these specimens with a view to publish whatever you may think of value – the subjects all more or less have been already treated on by you & we are glad to offer you further means of study.

Mr Prime failed to see you last year or would have handed you the dollar which unintentionally I have so long owed to you – I have placed the money in his hands to be given to you.

When convenient I shall hope to have report on the balance of Prof. Ortons shells some of which were to be returned when determined.

You will seen from the paper of Binney & myself that your report on the teeth of *Pineria terebra* is looked for with interest – also that we counted *P. Viequensis* & [illegible] as one species.

Can you tell me anything about M. Sallé – he has one Bahamas shell belonging to Governor Rawson for comparison with his [illegible] from Haiti. The war prevented any hearing from Dr Weinland⁽¹⁸⁾ to whom I sent shells through the Smithsonian Institution for comparison and you know his present address.

I notice that Mr A.D. Brown⁽¹⁹⁾ has described as a new species, a shell which is certainly variety of *H. Townsendiana* and also one (apparently) of the forms of *H. acuta* – possibly you saw the shells but in both cases I think he is wrong. I find that I send the Annals also by Mr Prime.

I am about to describe several new species of West Indian land shells – it may be that I shall wish descriptions with figures to appear in the Journal – in that case will my sending then of you for description be acceptable for you.

I shall indeed be glad to learn that the interests of yourself & family have not suffered – that the works on Mexican shells & on *Cylindrella* will not [illegible] be interrupted. With respect to *Cylindrella* I have a new one from St Lucia, allied to *C. collaris* & one from Curaçao – as you are especially engaged on the genus would you like to have them for description & to figure. I can send you any notes on their affinities.

With good wishes & offer of service

I am my dear Sir

Yours very truly

TBland

Bland to Crosse, 23 January 1872

42 Pine St. N.Y.
23^d Jan^{ry} 1872

M. Crosse

My dear Sir,

Many thanks for your letter of November with specimen of *H. nautiliformis*, which reached me safely. I have at last obtained from Dr Berendt⁽²⁰⁾ the address of M. Ghiesbreght⁽²¹⁾ – Dr B. gives me the following

Serv. D. Augustin Ghiesbreght

San Christobal

Chiapas

and mentions also that letters may be sent & will certainly be forwarded addressed

Serv. D. Pable Sastré y Mazas

S. Juan Bautista

Tabasco

I delayed writing expecting to announce the arrival of the Guatemala shells – they reached me a few days ago and I have already packed a suite for you – sending all the unique specimens. Indeed I send examples of all the species of land shells received without even taking time to endeavor to identify those new to me. The freshwater shells are in the hands of Mr Wheatley, but I have asked him to transmit a suite to me for you.

I find magnificent specimens of a *Megalomastoma*, which can surely be *M. emulacrum* – the top widely expanded with curious foramen where the ends meet near the umbilicus. I should except two species which I do not send as they are well known *H. Ghiesbreghti* & *eximia*.

I am enabled to give you the egg of one species of *Eucalodium*.

I will put with the above the Mohr shells & some others & forward by Express during the present week with [illegible] – so soon as the box has been despatched I will again write.

By this mail I send last number of the "Annals".
Time does not permit me to say more at this moment.
Your very truly
TBland

Binney to Crosse, 8 August 1872

{11 East Union Street,
Burlington, New Jersey}
Aug. 8th {187}2

Mons. Crosse

Dear Sir

Enclosed please for a draft for F. 40 – on account of my subscription to Journal.
I should have remitted earlier, but waited to hear from you about certain back numbers which I want.
Can you let me have them?
You do not refer in your notice of our description of lingual membrane of *Macroceramus Gossei* to the very un-*Cylindrella* teeth. Do call Dr Fischer's attention to them.
Mr Bland and I are still busy at the land shells – as you shall soon see by another paper of ours.
I am glad you have got hold of *Helix inaequalis*. The absence of a jaw in that species is indeed peculiar.
Yrs very truly
W.G. Binney

Binney to Crosse, 22 January 1873

{11 East Union Street,
Burlington, New Jersey}
Jan. 22 {187}3

Mons. Crosse

My dear Sir

In your favor of Aug. 29/72 you tell me I owe you 14 fr. for the nrs. of your Journ. sent me (vol. VI 1866). I enclose your draft on Drexel, Hoarjes & Co. for 54 fr. – so as to cover the 14 fr. and also my subscription for the Journal 1873 and 1874.

I have already written you to thank you for your continued kindness in sending me the second number of your most magnificent Mexican work. I have examined it with the greatest pleasure. Do call on me for any ex^a. you may want from Lower California. By the way, do you not want me to send you an ex^m. of my *Cylindrella Coahuilensis* – or is it too late to figure it? So of *Bulimus inscendens*, *Xanthusi*, *Arthemisia*, *pilula* – or any others you may want.

Lately, I have had submitted to me by the Smithsonian some shells collected by Dr E. Palmer⁽²²⁾ in Arizona, New Mexico &c. Among them were a few lots from Sonora. Being actually Mexican ground, I laid aside for you ex^a. which I enclose. There were also ex^a. of *Cylindrella Remondi* Gabb – and one species that may be *C. Pfeifferi* Menke. Also some *Physa* and *Limnaea*, which I have begged Dr Palmer to send at once to you.

From time to time I send you proofs of my not being idle – Soon you shall have something of interest – and a little later a paper on dentition of *Gaeotis*.

Yrs very truly
W.G. Binney

Binney to Crosse, 7 May 1873

{11 East Union Street,
Burlington, New Jersey}
May 7 {187}3

My dear Mr Crosse

This morning I received the third part of your beautiful work on the Mexican shells. Please accept my thanks for your continued kindness. I can say nothing more in praise of your work than I have already done, the present part equals the former parts in defying my powers of expressing clearly my estimation of it.

You are very generous in sending me the work. Someday I hope to be able to return your kindness.

In looking through this part I notice you speak in the same way as you do in Journ. de Conch. present volume, p. 168, of the distribution of species by commercial rather than natural agencies. I assure you a careful study of the land and fresh-water shells of British North America would convince you that Gwyn Jeffreys is right in considering certain species circumpolar common to the three continents. I have long believed in a common circumpolar fauna, see my Notes, p. 59, for the most northern localities we have heard from. I write no more about this, because I shall soon send you a long paper on geographical distribution of our land shells.

Of course I acknowledge *Helix aspersa* and *Bulimus decollata* to be accidentally introduced species – also *Zonites cellarius*. These are purely local. But *Helix pulchella* and *Cunella lubrica* are found everywhere, over all N.A. down to Mexico, if not farther.

Yrs very truly
W.G. Binney

Binney to Crosse, 2 August 1873 [incomplete]

Burlington, N.J.
Aug. 2/73

My dear Mr Crosse

Among some twenty species of Mauritius land shells lately sent to me from Agassiz Museum Comp. Zool. were several of *Omphalotropis*. I find the lingual peculiarly interesting, combining the characters of the 3-1-3 Cyclostomacea and the 000-5-1-5-000 Helicinacea. I send you a rough sketch of this lingual. I cannot make out more than three laterals but will again try to do so as the lingual would then be classed simply among the 000-5-1-5-000.

Of late I have had an opportunity of studying the genus *Achatinella*. The result is this. Of the s.g. of Albers

Partulina) have a delicate simply arched jaw and teeth like this
Bulimella)
Achatinella)
Apex)
~~*Newcombia*~~

Newcombia)
Laminella) all have a much stouter jaw, low, arched,
Leptachatina) often with a blunt median projection

all have lateral and central like these
but *Newcombia* and *Laminella* have marginals like these

while *Leptachatina* has marginals like this

[end of letter missing]

Bland to Crosse, 20 August 1873

42 Pine St. N.Y.
20. Aug. 1873

M. Crosse
My dear Sir,

Your favor received & I have time only to reply hastily. I have been very ill since I last wrote and sent shells to yourself & M. Sallé – you have them I hope safely. I have forwarded to you the new number of the Annals

– it was delayed for the plates. I am not short paer on the Geo. Dist. of *A. patula*. I regret to say that I do not write in French – do me the favor to translate it & if you can have me extra copy I shall feel obliged.

D^r Dohrn⁽²³⁾ was in my house last night – he examined the Swift specimens & agree with me entirely. I find that I possess one adult spec. only – but I hope to obtain one for you.

With respect to *B. membranacea*, I looked at Gabb's⁽²⁴⁾ shell, and judged with D^r Dohrn – he had already determined that *spirifer* is synonym of *membranaceus* & of *rimatus* – that view I adopt.

I see that several years ago Swift sent 3 spec. of an S^t Kitts *A. patula* to M. Sallé.

Excuse my haste – my business matters in arrear from my illness.

Believe me

very truly yours

TBland

Bland to Crosse, 10 November 1873

42 Pine St. N.Y.

10th Nov. 1873

My dear Sir,

I have your favor of the 11th October, the October number of the Journal and extra copies of the paper on *Amph. patula* – for all of which I am obliged. I am glad that you received and were pleased with the shells sent through M. Sallé. I look rather anxiously for your determinations, including of several which M. Sallé will submit to you. *Geostilbia Gundlachia* doubtless belongs to Haiti. I have a young specimen found by Smith near Aux Cayes with the species described by Pfeiffer in Mal. Blatt. 1866.

M. Sarg⁽²⁵⁾ would I thought visit Paris – he is now in England and about to leave it for Guatemala by way of Belize.

I am pleased to find that you are satisfied about the distribution of *A. patula*.

With regard to *Succ. rubescens* it appears to be an *Amphibulima*. I notice that Dr Fischer proposes to publish on the *Succinea* of the Antilles. A revision of them is much needed, and I shall be happy, if desired, to send for his use a series of specimens. Does he purpose embracing the species of all the Islands – from Bermuda, Bahamas & Cuba to Trinidad? I shall be glad to send all I have from the different Islands for his examination, if such be his wish – with liberty to retain duplicates only stipulating that such as are to be returned shall be sent back in three or four months – in the meantime that I may have a list of the species.

Pray advice me about this.

With respect to *B. spirifer* Gabb, which I cannot but think embraces two species – one, the smaller, having the internal plate, ~~an~~ I have no specimen of *B. rimatus* or *membranaceus*.

I judged *rimatus* to be the same as the shell figured by Binney & Bland from Reeve's figure & description. I called the attention of D^r Dohrn to this when he mentioned that *B. membranaceus* is also the same as Gabb's species.

Philippi's species appear to be in the Cabinet of D^r Pfeiffer (now D^r Dohrn's), but not *B. rimatus*. The only course I can suggest is that you write to Dohrn on the subject – I cannot, unfortunately, express any authoritative specimen. Binney & I published the dentition of *B. membranaceus*, adopting the determination of the species at Cambridge – the shell I did not see & at this time the Bulimi at the Cambridge Museum are not accessible.

I certainly hope that Dr Pfeiffer will continue to control the Malak. Blatt – indeed, as you remark, the name of Kobelt is little known to science. I have not seen very late numbers through some bookseller mistake.

I shall be happy yo receive *B. Hauxwelli* & your notes & be obliged for any shells which you may send.

I must conclude rather hastily, but always your very truly

TBland

Binney to Crosse, 8 February 1874

{11 East Union Street,
Burlington, New Jersey}

Febr. 8 {187}4

My dear Mr Crosse

I received your of Dec 20th and am much obliged for the information you are kind enough to give of the dentition of *Bourciera*.

I have also received the 4th part of your beautiful Mexican work. I cannot say more in praise of it than that it equals the former parts. I am especially pleased with the figures you have given of the dentition of *Orthalicus*. As regards the composition of the jaw of that genus, I imagine we should find ourselves quite in

accord, could we have a chance of talking the matter over – however at variance our printed words may be. As regards the dentition of *Macroceramus Gossei*, I really do not understand how you can speak of it as being of palmate type like *Cylindrella*.

I am still working at the study of lingual dentition – and have already quite a number of descriptions ready for publication. So you will soon hear from me again.

Meanwhile, believe me, as ever.

Yrs very truly

W.G. Binney

Please thank Dr Fischer for his share of the gift of your beautiful work.

Binney to Crosse, 27 March 1874

{11 East Union Street,
Burlington, New Jersey}
Mar. 27 {187}4

Mons. Crosse

My dear Sir

Is it possible for you to lend me the lingual membrane of *Zonites caducus*?

When you notice in your Journal the *Achatinella* paper, of which I have sent you a copy, please call attention to your former notice of it – which does not exactly give the results of our studies. I misled you in my report of my work, not at that time having thoroughly studied out the subgenera question.

I have just sent to the Academy of Natural sciences of Philadelphia a paper on dentition and anatomy, which I think, will please you. There are ten plates illustrating it.

I am about publishing lingual dentition and genitalia of the following S.A. (Peru) species

Bul. Lobbii – *rhodolarynx* – *proteus* – *foveolatus* – *primularis* – *Altoperuvianus* – *O. Gallina sultana* – the last I shall compare with Troschel's figure.

There are other species, not yet determined.

Yrs very truly

W.G. Binney

Binney to Crosse, 12 April 1874

Burlington, N.J. Apr. 12/74

My dear Mr Crosse

Yesterday I received from Mr. H. Hemphill⁽²⁴⁾, a most reliable correspondent of mine, some shells collected within the limits of Lower California – at Todos Santos Bay (lat. 32°) and island – and at mouth of "Santa Tomas river" (should it not be San Tomas?), which is about 20 miles south of Todos Santos. I send you a *Succinea*, *Limax* and *Pupa*. Besides there he collected at Todos Santos Islands ex^a of *Helix Newberryana*, *Traski* and *H. Stearnsiana*. The latter, I believe = *Kelletti*. He sent me each.

At mouth of Santo Tomas river:

H. Stearnsiana

Traski

Macrocyclis Duranti

On bluffs surrounding Todos Santos Bay

H. tudiculata

Stearnsiana

Kelletti

Macrocyclis Voyana

~~~~~

Lately I have had an opportunity of examining and dissecting several Peruvian Bulimuli – *Lobbii*, *altoperuvianus*, *rhodolarynx*, *Peruvianus*, *Proteus*, *primularis* and *Bulimus foveolatus*. You shall have the results of my examination when they come to be published. I will, however, now call your attention to the dentition of *Orthalicus gallina-sultana*, which was among the same lot, all collected by Prof. Orton. There is not a shadow of doubt as regards the identity of the species, however my examination may disagree with that of Troschel (Ar. f. Nat. 1849) I give you a sketch by camera lucida of the dentition and genitalia. You will be surprised to find the former like that of *Liguus virgineus*. I think this will convince you of the impossibility of adopting your proposed

s.g. *Orthalicinus* as a part of the genus *Orthalicus*. If *Liguus fasciatus* must be removed from *Liguus* to *Orthalicus* on account of its dentition, surely *gallina sultana* must be removed from *Orthalicus* to *Liguus* on the same grounds. The fact is, we must patiently work at the accumulation of data on which some day we may hope to found some sort of system.

I hope you got my paper on Geographical Distribution.

Please show the sketch to Dr Fischer.

Yrs very truly

W.G. Binney

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**Binney to Crosse, 15 January 1875**

St. Augustine, Florida

Jan. 15/75

My dear Mr Crosse

Your letter of Dec. 19<sup>th</sup> has been forwarded to me here, where I have come to avoid cold and storm of winter. I was very near going to Nice – in which case I should have had a chance of seeing you – but I turned my steps southward. I am now in the lovely land of Florida, among oranges, bananas, palmettos &c. – and let me add *Polygyrae* and *Glandinae*.

I have no copy of my 'Say' to send you – nor can it be got in America, being long out of print. Baillièrè may have it, as it was published by a branch of his house in New York. Happily, I have a few copies of that portion which relates to land shells. I have a copy here to guide me to Say's Florida localities – but I mail it to you with this. Do write me of you receive it.

What will you do with *Bul. emeus*?

See Terr. Moll. U.S. IV for figure of Mrs Say of *Bul. alternatus* and *serperastus* – also L & Fr. W. Shells I.

Did I not send you some original drawings of Say's Mexican shells?

I enclose for you a sketch I have recently had the opportunity of making of the genitalia of *B. pallidior* of Lower California. Use it as you like.

I shall soon be able to send you my 'Notes' II part 3, devoted almost exclusively to the lingual dentition of American land shells.

Command me in any way.

Yrs very truly

W.G. Binney

Address always

Burlington

New Jersey

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**Binney to Crosse, 10 March 1875**

St. Augustine, Florida

March 10/75

My dear Mr Crosse

It was only yesterday that I received yours of Jan. 10<sup>th</sup>, having been quite ill during the last month and unable to attend to anything. I fear therefore, that I am too late with my answer, but do my best.

The jaw of *Bulimulus spirifer* is not like that of *Orthalicus*. *Au contraire*, it is of the same type as that of *Bul. sufflatus*. There is not the chevron-like arrangements of the ribs at the upper centre as in *Cylindrella*.

Being absent from home, I cannot draw you the lingual membrane, indeed, I fear I have none preserved.

I do not believe *B. spirifer* is same as *membranaceus*. Certainly it is not the same as the *B. membranaceus* brought by Mr Anthony from Brazil. I had some of the latter from Anthony, and have described its jaw and lingual membrane – I have ~~often~~ not the same certainty about *B. rimatus*, but know that species only by Reeve's figure. But surely you are right in retaining the name *spirifer* as applying solely and without question to the Lower California species.

I wrote you lately from here and sent you a copy of Say's descriptions of land shells. I hope you received it. In ~~that~~ that letter I told you that forced to leave home by ill health, I decided to try Florida instead of any winter resort in southern Europe. Nothing can excel the climate here – no frost all winter, mercury about 75° Fahrenheit

– often above 85° and only four time below 50° during the winter, fine hotels, lots of people (among them Mr Isaac Lea<sup>(27)</sup>, who is still young at eithy three) – boating, riding, sailing &c.

Very truly yrs  
W.G. Binney

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**Bland to Crosse, 15 November 1875**

45 & 47 Exchange Place  
New York  
15<sup>th</sup> November 1875

My dear Sir,

I received your favor of the 10th October & have to thank you for the extra copies of my paper on the *Helicina*. The 5<sup>th</sup> livraison of the shells of Mexico has not yet reached me through the Smithsonian Institution, but I have M. Swift's copy from M. Sallé.

I have also to thank you for the Journal – I noticed the descriptions of the new Sarg shells.

I shall be very glad to see the intended paper on the Cayenne shells. The *Ennea* I consider a var. of

bicolor.

By this mail I forward copy of the Index to Vol. X of the Annals – that previously sent must have been lost in the post.

On receipt of your letter, I wrote to Mr Wheatley for specimens of *Valvata pupoidea* – he replied that he would look them out & forward to me for you. Almost immediately afterwards he was taken ill but every day I hope to get the shells.

Seeing the delay, I wrote to Mr Anthony<sup>(28)</sup> at Cambridge & should get his reply, I hope with the desired specimens, tomorrow. They should be forwarded in a little box by mail, with specimens of *H. Idahoensis* and any other species which I can select.

I have nothing, I fear, new or of especial relevance from Mexico or Guatemala.

I send to you my two last papers from the Annals & very soon you will have another, printed in advance of the issue of the number of the Annals.

With the shells I will again write to you.

I am, my dear Sir,  
yours very truly  
ThBland

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**Bland to Crosse, 19 November 1875**

45 & 47 Exchange Place  
N.Y.  
19<sup>th</sup> Nov. 1875

My dear Sir

I wrote to you a few days ago as to my efforts to get specimens of *V. pupoidea*. Mr Wheatley sent to me three specimens of *Valvata* for you, and explained that to his surprise he found the glass tube with the label *V. pupoidea* but not a specimen in it.

M. Anthony write "As to *V. pupoidea*. We never get any now – I send one of our tablets taken from the collection, which you can forward to M. Crosse with my compliments". He adds that he wrote to you a year or more ago but got no reply. This pupoidea must be a rare species & I am sorry that I cannot do better for you. With Mr Anthony's specimens, I send Mr Wheatley's of the three sp. of *Valvata*, also

2 *H. Idahoensis* Newc.  
2 *Cooperi* W.G.B. var.  
2 *devia* Gld var.  
1 *Harfordiana* J.G.Coop.  
1 *polygyretta* Bld & J.G.C.  
1 *germana* Gld  
2 *Cylindrella gracilecollis* Fer.

there [illegible] I hope will be acceptable.

I shall be glad to have *Bulimulus Mazei* – perhaps you have a [illegible].

I send the shells with this by mail in a little box. Pray excuse my writing in haste.

Your very truly  
TBland

M. Crosse

**Binney to Crosse, 19 January 1876**

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Aiken, South Carolina  
Jan. 19/76

I write you from my winters home to thank you for yr. continued kindness in sending me the new number of your beautiful Mexican work. I recognize the fine figures you have given of my L.C. species of *Bulimulus*.

I have the mem[orandum]. of my subscription to the Journal, but must delay responding until my return home.

Yrs very truly  
W.G. Binney

**Binney to Crosse, 22 May 1876**

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May 22/76

My dear Mr Crosse

On my return from passing the winter at the south, I find the copy of your beautiful work (p. 455 et seqq.) awaiting me. Please accept for yourself and Dr Fischer my thanks for it. To say it is equal to the former parts is the highest praise of it.

In a recent number of your Journal I find a memorandum that I am arrears for my subscription. I forget when my year commences – please inform me when my last remittance became used – and I will remit again for a couple of years.

Through the S.I. I lately sent you my Notes II part 4, which complete the volume, and title of the same volume. You should have received all the previous parts. I have sent them punctually, but find no notice in your Journal of anything of mine later than 1873 – but you have a list of all my writings with the title pages of my vol I and II of 'Notes'.

Shall we see you at our great Exhibition? I hope so and in that case you must be my guest. It is only an hour from my house to the grounds.

Very truly yrs  
W.G. Binney

**Binney to Crosse, 24 September 1876**

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Sept. 24/76

My dear Mr Crosse

In yrs of 7<sup>th</sup> you tell me I owe subscription of 1875.6 of Journal – I send you 60 fr. to cover also 1877.

I have received yrs of Aug 1st. I regret you not coming to our Exhibition – 127000 admissions yesterday! – I have not myself had the courage to visit it, though I am within an hour and a half of it!

Your notice of my vol. II is very full and satisfactory – you will soon receive the first part of vol. III.

Madame Binney, coming into the library at the moment, asks to whom I am writing – and on receiving my answer, says "*Dites bien des choses de mon part*".

Yrs very truly  
W.G. Binney

**Binney to Crosse, 30 August 1877**

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Aug. 30/77

My dear Mr Crosse

I have several times written you about some Guadelupe Island shells sent you now quite a while ago. Today I have a letter from Dr Palmer, the collector, directing me to send the shells (i.e. those I have returned – you are to keep yours) to the Boston Society of Natural History with remarks to be published. I beg you therefore

to write me at once your opinion on the species, that I may give your views in the notice to be published. I cannot with any courtesy to D<sup>r</sup> Palmer delay the matter longer than enough to hear an answer to this.

I had hoped to have seen you in Paris this last summer, but I have been detained at home by sickness in the family – and have immediate prospect of getting off, as Mrs Binney's father (at 84) is now a great invalid – and has come to us to live – he having quite lately lost his wife.

Do let me hear from you.

Yrs very truly

W.G. Binney

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**Binney to Crosse, 3 November 1877**

Nov. 3/77

Mons. Crosse

Dear Sir

Will you have the goodness to keep this till called or sent for by M Dupont.

It was with great regret that I heard of the loss your family has suffered.

Yrs very truly

W.G. Binney

You will be interested to know that I have commenced publishing a fifth volume to the Terrestrial Mollusks of the United States

---

**Bland to Crosse, 24 January 1878**

45 & 47 Exchange Place

N.Y.

24<sup>th</sup> Jan<sup>ry</sup> 1878

M. Crosse

My dear Sir,

I have been sadly at fault in not writing to you, not overwhelmed with business and by no means in strong health. I have been obliged to neglect much valued correspondence.

Accept my thanks for the Journal – I send with this the two last numbers of the Annals.

I have put aside a few shells for you and will very soon forward them.

Death has in the last year been sadly active among our friends – I sympathise with you in your home loss, I lost a good sister.

We both regret Pfeiffer, Carpenter<sup>(29)</sup> – Anthony & Jewett<sup>(30)</sup> also.

I now write hastily – will do so again with the shells.

I am, my dear Sir, with all good wishes,

your very truly

Tho. Bland

---

**Bland to Crosse, 7 February 1878**

45 & 47 Exchange Place

N.Y.

7<sup>th</sup> February 1878

M. Crosse

Paris

My dear Sir,

I lately wrote to you, after a long silence, saying that I would shortly send you some shells.

My friend M. Ferandent of Paris left for London a few days ago – he is the bearer of a small package for you. After remaining less than a week in London, he will go to Paris and hand the package to you. I add list of the contents.

You have a *Choanopoma Sumichrasti* which I sent to you, belonging to the Smithsonian – will be good enough to return it.

I write hurriedly

I am my dear Sir,

yours very truly

Tho. Bland



- 1 *Macroceramus Gossei* Pf. Mandeville, Jamaica  
not very unlike *M. pontificus*
- 2 *M. turriula* Gloyne, P<sup>t</sup> Henderson, Jamaica  
rather a var. of *M. Gossei*
- 3 *M. turriula* of Mantanzas, Cuba
- 4 *M. ?* is this *turriula*? Trinidad, Cuba
- 5 to be returned  
*Macroceramus ?* New Braunfels, Texas  
surely not *pontificus* or *Kieneri* – the latter  
I believe does not belong to our fauna  
I would much like an authentic spec. of  
*Kieneri* & of *pontificus* Cr. & Fisch.
- 6 *H. oppiliata* Mor. var.  $\beta$   
Cedar Keys, Florida  
nearest to but distinct from *Dostelliana* Bland.
- 7 *H. Dostelliana* Bld. near Jacksonville, Florida
- 8 *H. Couloni ?* Shuttl. said to be from Mexico
- 9 *H. ?* Habitat unknown, from the  
late Colonel Jewett – parietal tooth rather  
like *H. mooreana*. Please return one –  
if you desire to keep the perfect one, do so
- 10 *Strophia ?* Abaco, Bahamas
- 11 " " "
- 12 " San Salvador, Bahamas
- 13 *Helix ?* scarcely *H. Troscheli* var.  
San Salvador, Bahamas
- 14 " *Milleri* Pf. Fortune Is., "
- 15 *Strophia Martensi ?* Pf. Cat Island, "
- 16 *Orthalicus undulatus ??* Guil.  
to be returned Caracou, Grenadines
- 17 " *undatus* Guppy Trinidad  
are these two (16 & 17) *O. princeps* ?
- 18 *Orthalicus zebra* Mull. Jamaica  
(Cr. & Fisch.) smaller specimen  
with epidermis not very often seen
- 19 *O. zebra* Mull. var. ?  
Central America I believe
- 20 *O. melanocheilus* Val.  
from Mazatlan
- 21 *O. princeps ?* Brod. Panama
- You will oblige me much by your determinations of these shells, as I am preparing for publication a Catalogue of West Indian species.

TB

**Binney to Crosse, 15 May 1878**

May 15/78

My dear Mr Crosse

I have yrs of April 30<sup>th</sup>. The number of your beautiful work which you have sent me through the S.I. will, no doubt, reach me. Many thanks for your continued kindness.

In hope this summer to send you a fifth volume of my father's work on our land shells – continued down to date – and probably my last effort of the kind.

I regret not myself having your desiderata, the Mexican Physae. I have, however, written to several friends for some, which shall be sent at once to you if they come to me.

I hope you got the Guadelupe Island shells – very interesting to your work.  
As ever truly yrs  
W.G. Binney

**Bland to Crosse, 17 June 1878**

45 & 47 Exchange Place  
N.Y.  
June 17<sup>th</sup> 1878

My dear Sir,

I have received your favor of the 30<sup>th</sup> April and beg you to accept my apologies for not having replied sooner, but I have been absent from New York, part of the time confined at home by illness, and always overwhelmed with business. I have not, however, failed to make every possible exertion to obtain for you the animals, in alcohol or glycerine, of specimens of *Aplexa* & *Bulimus* from Mexico or Guatemala, but I regret to say without success. Last week I looked over a number of shells collected by the late Mr. W.M. Gabb, whose death was [illegible] to deplore, and found several specimens of a *Physa* which he brought from Costa Rica, in which the animals appear to be, although dried up. I have put them them in glycerine & now enclose them, hoping that they may be of some use, and only asking the name of the species. It is intended to publish a list of W. Gabb's shells collected in Costa Rica, with descriptions of new species, as to which I may again particularly address you.

I have not yet received the 6<sup>th</sup> livraison of the Mexican work through the Smithsonian – the copy for the late Mr. Swift I have received from M. Sallé. I congratulate you with your progress with this magnificent work.

I received from M. Fischer a copy of Shuttleworth's Notitiae & will acknowledging it.

I am glad that you received safely the little box by M. Ferudent, and shall look with interest for your views as to the shells.

If possible I will obtain the animals which you do much to desire, but fear I may be unable to do so.

I am, my dear Sir,

yours very truly  
Th. Bland

M. Crosse

**Binney to Crosse, 7 March 1879**

Burlington N.J.  
United States  
Mar. 7/79

My dear Mr Crosse

I rejoice to say that at last my work is out – I have actually received copies of the new edition of Gould's "Invertebrata of Massachusetts". I am quite pleased with the manner in which the printers have acquitted themselves – but you shall soon judge of it yourself, for I have sent already to the Smithsonian Institution a copy addressed to you. The copy for Dr Fischer is also ready to be sent, but I shall look about for other more prompt means of sending to him.

Should you think my book worthy of notice in your Journal, will you be kind enough to mention that copies may be obtained of M. Savy. I am very anxious to sell copies enough to pay for putting a small edition into the trade. If this be not done, the book will never be of practical use, as nearly all the edition published by the state will be absorbed by public libraries &c.

I have written M. Savy, referring him for copies to Messrs Samson, Lowe, Son & Co. of London, who will have copies for sale.

I have sent a copy to M. Deshayes also.

I have read with great pleasure your article on the lingual dentition of ~~Pompholyx~~ *Cylindrella*. I shall soon send you some work of my own in partnership with Mr Bland.

No chance of my seeing Paris again at present. I am kept at home by the failing strength of my good mother. I always look forward, however, to the pleasure of again visiting Europe.

Mrs Binney thanks you always for your kind remembrance of her.

I hope your family remain well.

I have been looking for a memorandum of my indebtedness for the 'Journal'. I am ready to respond as soon as I hear from you how much it amounts to. Do not delay reporting.

Very truly yrs  
W.G. Binney

**Binney to Crosse, 5 April 1879**

Burlington, N.J. United St.  
April 5/79

Mr Crosse  
My dear Sir

This morning I received your's of March 21<sup>st</sup>. I had already written you about my subscription to the Journal. Enclosed I give you a draft on Paris for 40 fr. to cover my debts.

I am glad you like the photograph of lingual dentition. It is a very satisfactory way of showing the details of structure, and is of unimpeachable accuracy. Curiously enough the photograph of *Pompholyx* will be of great value for me – for Mr Dall, the same who found four eyes in *Pompholyx*, has prepared for publication a paper on the lingual dentition of this genus. He has seen fit to declare my figures incorrect (in Annals New York Lyceum). I shall send ~~him~~ you my paper and also one of his, and you can see which of us are right according to the photograph.

Mr Dall<sup>(31)</sup> is very young, and will greatly injure his reputation by publishing too soon. He belongs to the same category as Gabb, Gill, Tryon *ed id omne genus*. The whole lot are a nuisance, they reflect discredit on American science and do not advance truth.

I suppose by this time that you have received the copy of *Invertebrata* which I sent you. You will be much pleased with the artistic effect of the work – but greatly disappointed with its scientific character. It is not modernised as it should be. It also suffers from the divided authorship, as all such books must. I have strictly followed my instruction in carrying out the views of D<sup>r</sup> Gould.

The work cost \$15000. The state of Massachussetts is now publishing a work on Birds.

I have read with great interest your paper on lingual dentition of *Cylindrella* &c. – and shall be glad to receive an extra of it (*tirage a part*).

I have been mounting lingual membranes this winter, have some hundred species ready – and hope this coming summer to photograph and describe them. Some are American – others foreign from Agassiz Museum.

Speaking of the type of herbivorous and carnivorous Geophila, I think too much credit is giving to the habits of the mollusks. I believe experience shows that a snail will eat whatever it gets hold of. Moreover, the so called herbivorous type of teeth do not always belong to herbivorous snails. The most carnivorous of snails ever in my possession was *Bulimus decollatus*, which I kept a long time solely to eat up and clean out the shells of other species, yet *Bulimus decollatus* has a strictly herbivorous lingual membrane. Again, the Limaces and Hyalinae are herbivorous enough though their lingual membranes rather are of carnivorous types.

I mail ~~today~~ in a few days two your address two copies of my paper on linguals, please give one to D<sup>r</sup> Fischer. I mail also to you a copy of *Invertebrata*. If the copy already sent has not arrived please keep this one; if it has arrived please give this to D<sup>r</sup> Fischer. You understand that you are to keep to yourself the first one which reaches you, and give the second to D<sup>r</sup> Fischer.

No chance of my getting to Paris at present. I am in very indifferent health, and feel quite disinclined to leave home now.

I send my letter through England as that way costs 10 cents, while the French mail by Havre charges 15. The book and extras, however, I shall sen by the first Havre steamer so you should receive it three or four days after this.

Yrs very truly  
W.G. Binney

**Binney to Crosse, 28 April 1879**

April 28/79

Mons. Crosse  
Dear Sir

I have received quite a batch of alcoholic Mexican shells (nine lots) collected by Dr. E. Palmer – from Tampico, Salto, Gueyenes, Savinito, San Luis Potosi, Alvarez, Minas Viejas, Sierra de San Miguelito. There are *Helicina*, *Melania*, *Succinea*, *Glandina*, *Pomatia* like *Buffoniana*, *Polygyra*, *Helix griseola*, *Polygyra*, *Physa*, *Planorbis*. If not too late for your work I will send the whole lot to you. Dr Palmer would like a small compensation for his trouble in collecting. Let me know about it.

Yrs very truly  
W.G. Binney

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**Binney to Crosse, 24 July 1879**

July 24/79

My dear mr Crosse

In yours of 10th you speak of wishing to see *Pedipes lirata*. I have none – but I have three, and send you two, of *P. unisulcata*, JG Cooper, from Todos Santos Bay, L. California. I add also in hopes of their interesting you,

*Melampus olivaceus*, Carp. San Diego

*Alexia setifer* JG Cooper S. Francisco

*Truncatella Stimpsoni* Stearns S. Diego

*Californica* Pfr. Todos Santos Bay L.Cal<sup>a</sup>

We will arrange about your copy of my vol. V T.M.U.S. in the simplest way – by my mailing you another with this. Each part, text and plates, are sent separately. Let me know, please, when they reach you.

Sometime ago I sent to your care a parcel for M. Dupont<sup>(32)</sup> of Mauritius, hoping you could put it in the way of reaching him. Do let me if it has left Paris.

I mailed you a card lately asking how much I am in arrears for the Journal, that I may remit.

I have, if you wish it, a specimen for you of *Veronicella olivacea* Stearns, original lot, from Nicaragua, but which Stearns says he also found at “Lobitos”, Upper Californian Province, so that it comes within your scope.

Say to Dr Fischer that *Onchidella Carpenteri* lately examined by me does not have any jaw. Lingual membrane like that figured by me in Terr. Moll. V.

Very truly yrs

W.G. Binney

---

**Binney to Crosse, 26 September 1879**

Sept. 26/79

My dear Sir

I enclose an order on Munroe for 40 fr. to the Journal for 1878.1879.

I send also exa of *Bithynia tentaculata* which somehow has been introduced into canals and lakes in New York state. These individuals are from Champlain canal, West Troy, New York.

Will you have the kindness to give me the name of the Mexican *Glandina* which I sent you some time ago.

Yrs very truly

W.G. Binney

---

**Bland to Crosse, 30 September 1879**

45 & 47 Exchange Place, N.Y.

30<sup>th</sup> September 1879

My dear Sir,

In April 1878 you wrote to me acknowledging a little box of shells sent to you by M. Fernardent in January that year. I have heard nothing more about it. I have been very anxious to have your opinion on the shells submitted to you, one or two are to be returned.

In yours above mentioned you asked for animal of one or two Mexican freshwater species, and I wrote to in the middle of June – in fact I was unable to gratify your wish.

I owe you very many thanks for the different parts of the shells of Mexico and of the Journal, and desire to express my obligations to you.

I must explain that for a year or more my health has been much impaired – so much so that I have unable to do more than actually necessary business. I am not yet by any means well, but a visit to the country, and now cooler weather has somewhat restored me. I cannot, however, complain very much, and you will think so, when I mention this I am now just seventy years of age.

I have now the pleasure of sending you a few shells, which will I trust be acceptable, I add a list of them. Some are from Costa Rica. The late D<sup>r</sup> W.M. Gabb, on his return from Central America placed the shells which he had collected in my hands, but on his leaving for Sto. Domingo, he wished nothing to be done with them until his return. He came back and very soon died. It was understood to be his wish, that a suite of them should go to the Philadelphia Academy. Some interesting specimens in alcohol, were by him entrusted to M<sup>r</sup> Binney, who has doubtless sent you a copy of his paper about them – I now send another copy. Seeing that M<sup>r</sup> Angas<sup>(33)</sup> had described the new species found by M. Boucard, I forwarded to M. Angas the Gabb shells, with the understanding that he should describe any new species, and publish them with figures, and a Catalogue of the whole, presenting the type series to the British Museum. This has been done, and the paper of M. Angas will appear in the Zool. Proceedings, probably next month.

A suite (there were no duplicates of the species described by Binney – all have gone to the Phila. Academy) has been given to the Academy. Some to Dr Newcomb for the Cornell University – he was an old friend and worker with Gabb. I now send to you the best specimens remaining – I retain none for myself, of the beautiful *H. Zhorquinensis* only six were found – one only of several and they are in the Brit. Mus.

One only of *Cyclotus Boucardi*, and that conceded to the Phila. Acad.

At the last moment I advised M. Angas that you described a *Bul. Gabbi* – he may have heard in time to change the name of the Costa Rica species.

I also send some new & interesting shells from Roan Mountain, North Carolina – W. Binney is publishing figure of the animal of *Vitrini-zonites latissima*. Lewis, who described it as a *Vitrina* – it is a very remarkable species combining the characters both of *Vitrina* and *Zonites*, notably the mucous pore of the latter – it is quite rare.

Lately I received from Gibbons some shells found by him in the Island of Curaçao. I had, I think, your type of *Cistula raveni*, I now send you one, with half the specimens I possess of others. W. Binney is publishing figures of the dentition of the *Cionella*. Surely the *Macroceramus* is not *M. mermis* of Gundlach?

It will afford me pleasure to hear from you, and I beg as an especial favor that you will give me your opinion on the shells sent in January 1878.

You have a specimen of *Choanopoma Sumichrasti*, which belongs to the Smithsonian Institution.

With neglect of correspondence, I omitted to forward, I believe, the "Annals". I now send by mail N° 3 to 8 inclusive of Volume 1 of the new series. If any previous number is wanting, it shall be sent to you.

Pray offer my regards to M. Sallé.

With good wishes to yourself

Believe me

yours very truly

Th. Bland

M. H. Crosse

Shells for M. Crosse, from T. Bland

30th September 1879

from Costa Rica

– *H. Zhorquinensis* Angas

– *Asopus* "

– *B. Josephus* "

– *Gabbi* "

– *Glandina isabellina* Pf.

– *Cyclotus irregularis* Pf. var.

– *Helicina funcki* Angas

– *beatrix* "

from Roan Mountain, North Carolina

– *Mesodon Andrewsii* W.G.B.

– *Wheatleyi* Bland

– *Zonites Rugeli* W.G.B.

– *Vitrini-zonites (Vitrina) latissima* Lewis

from Curaçao

– *Cionella Gloynei* Gibbons M.S. (dentition of *Cionella*)

– *Macroceramus Gossei* ? Pf.

*inermis* Gund. fide Gibbons

– *Cistula Raveni* Crosse

– *Cylindrella Raveni* Bland

Th. Bland

### Bland to Crosse, 21 November 1879

45 & 47 Exchange Place

N.Y.

21<sup>t</sup> Nov. 1879

My dear Sir,

On the 1st October I wrote to you with a box of shells – the latter sent by Express, freight paid. I am anxious to hear of its safety & request you to advise me.

I enclose copy of a paper by Mr Stearns describing a curious variety of *H. mormonum*.  
Hoping that I may receive a reply to my last before this reaches you.

Yours very truly  
Th. Bland

I was much interested in your figure of *Succinea putris* with *Leucochloridini paradoxum*. A good many years ago I had a [illegible] *Succinea obliqua* with the same or an allied companion – the shading of its top & down with the tentacle excelled my surprise. I took the specimen & never met with another.

**Bland to Crosse, 17 January 1880**

45 & 47 Exchange Place  
N.Y.  
17<sup>th</sup> Jan. 1880

M. Crosse  
My dear Sir,

Not having heard further from you as to shells sent in January 1878, or received acknowledgement of receipt of those sent in October last, as to which I wrote again at a later period, I have to request that you return for me, to M. Boucard<sup>(34)</sup>, the species numbered 5 and 16.

I must confess that I have been very anxious for your opinion on them and the other shells, and of your now favor me, I shall be greatly obliged.

Be good enough also to return the *C. Sumichrasti* which belongs to the Smithsonian Institution.

Thinking you for the Journal, and with good wishes,

yours very truly  
Th. Bland

**Bland to Crosse, 19 April 1880**

45 & 47 Exchange Place  
N.Y.  
19<sup>th</sup> April 1880

My dear Sir,

Thank you for your very acceptable letter of 25<sup>th</sup> March. In truth this country likely seems to feed the world.

I am glad that you were pleased with the shells which I sent to you, but regret the destruction of *H. cesopus*. Finding one dead specimen left [illegible] the few of the Gabb shells remaining in my possession I had the pleasure of sending it to you – at least it gives the form of the species.

Very lately I have received two or three specimens of an *Oleacina* from Bexar County, Texas, which I do not know. It belongs doubtless to the Mexican fauna, and I send the best specimen for your labour, requesting you to [in]form me with its specific name.

I have one dead specimen 43 mill. long, 7 whorls it is scarcely a var. of *decussata* Desh.?

By all means retain the specimen of *C. Sumichrasti* until you have figured it.

As to the specimen which I would to be returned, favor me with the list of names, referring to the numbers, and give the shells in a little package to M. Boucard who will send them to me.

I have one of Dr Pfeiffer's types of *Macroceramus Kieneri* – the species most certainly does not belong to our fauna, as you state in the work on Mexico. We have *pontificus* and *Gossei* surely.

I received and thank you for the Journal and Livraison 7 of the Mexican work.

I write now somewhat hurriedly

yours very truly  
Th. Bland

The shells in a little box by mail. I write to M. Boucard.

I should very much like to have an authentic specimen of *M. pontificus*, looking at your emended description I almost doubt having seen one.

Recently examining ? *Balea Canteroiana* of Cuba, I opened a couple (retaining one intact) and found a the parietal lamina continued within – this has not, I think, been previously noticed. I avail myself of this opportunity to send the two opened specimens to you – they are at your disposal. You may think it worth while to publish this fact.

TB

**Bland to Crosse, 24 April 1880**

45 & 47 Exchange Place  
N.Y.  
24<sup>th</sup> April 1880

M. Crosse  
My dear Sir,

I lately sent to you specimens of an *Oleacina* found in Texas, and asking you, if you found it new, to describe it.

I communicated the fact of my having done so to the Gentleman from whom I received the specimen, and he rather objects, wishing to deal with the species himself. Under these circumstances I cannot do otherwise than request that you will not publish description. I regret having troubled you, and while I should be glad to have your specimen, so not, as the matter now stands, urge you to give it. Pray however keep the specimen – I will let you know, indeed send why, when my correspondent has done his work.

In haste

yours very truly  
Th. Bland

**Binney to Crosse, 22 May 1880**

Burlington, N.J.  
May 22/80

My dear mr Crosse

Ill health has caused me to give up all my shell work. On this account I have several times asked you to cease sending me the "Journal", but it has come all the same. I must therefore, again say that I cannot be responsible for any numbers beyond those covered by my last remittance. If I owe anything beyond that, let me know, that I may remit.

It is a sad thing to feel ones inability to continue the studies carried on during thirty years, but there is no hope for it.

You will be glad to hear that I have already given my collection of American Land Shells, including my father's collection, which between them have been the accumulation of sixty years, to the Smithsonian at Washington, the American Museum of Natural History in New York – and have still retained a third set to be given at my death to the Museum of Comparative Zoology at Cambridge. The collection was so large, it bore division very well. My preparations (over 1000) of lingual membranes go to the last named institution.

Among my pleasant recollections connected with my scientific life are those of the pleasant moments passed with you. I shall always keep them.

Yrs very truly  
W.G. Binney

**Bland to Crosse, 28 July 1880**

45 & 47 Exchange Place  
N.Y.  
28<sup>th</sup> July 1880

My dear Sir,

I replied to your favor of the 25 March last on the 19<sup>th</sup> April with the only specimen in my possession of *H. asopus*, and also a spec. of the Texas *Oleacina*.

I have to thank you for the Journal and notice the description of *Geostilbia Blandiana*.

I can scarcely tell you how anxious I am to have your opinion on the shells sent to you by M. Fenardent in Jan<sup>ry</sup> 1878 – I asked you to return N<sup>o</sup> 5 and 16. N<sup>o</sup> 5 a *Macroceramus* from Texas, and N<sup>o</sup> 17 [*sic*] an *Orthalicus* from the Grenadines. You will oblige me exceedingly by favoring me with advice as to these shells. I wrote to M. Boucard, but he is probably absent from Paris – if then you return the shells to me direct, pray do so at my cost.

Begging you to accept my good wishes  
your very truly

Th. Bland

**Bland to Crosse, 27 August 1880**

45 & 47 Exchange Place  
N.Y.  
27<sup>th</sup> August 1880

M. Crosse  
My dear Sir,

If you have not already despatched the few shells to me, which I am so anxious to receive, they can be sent to Madame G.L. Fenardent, N° 4 Rue de Lonvois, who will, on the return to New York, kindly hand the little parcel to me.

I have to presume that you received the Texas *Oleacina*.  
Sorry to appear troublesome.  
yours very truly  
Th. Bland

**Bland to Crosse, 7 December 1880**

45 & 47 Exchange Place, N.Y.  
20<sup>th</sup> December 1880

My dear Sir

I lately received through M. Boucard two of the shells which I sent to you nearly three years ago with others, asking the favor of your determination of them. The two received are those numbers 5 a *Macroceramus* without any opinion, and 16 *Orthalicus obductus* Shuttl.

I must confess that I am disappointed at this result, after the length of time which elapsed. For many years I have been in the habit of sending shells to you, not a few for your own collection, and other for determination, and I have been indebted to you for much service in that direction and otherwise.

I note the frequently sent my only duplicate – often the only specimen I possessed, thinking it understood that in return you would favor me with certain determinations. I judge now that it is your wish to discontinue such interchanges, and I have to ask in consequence that you will be good enough to return me N° 6 of my list of Jan<sup>ry</sup> 1878 *H. oppiliata* ? – a rare shell, of which I have one other only, and as to which I must seek the opinion of another distinguished European Naturalist. I have to ask the same as to N° 13 *Helix* ? scarcely *H. Troscheli*, and for the same reasons.

When I have any shells which may be of interest for your collection I shall have the pleasure of sending them to you, without reference to your determinations of them.

I may mention as a matter of interest to you, that I have received specimens of *Amphibulima patula* from Dominica, and a small variety, from the Island of Saba, where it was found on the leaves of the Banana plants. Thank you for the Journal &c.

I am my dear Sir,  
yours very truly  
Th. Bland

**Bland to Crosse, November 1881**

Shells for M. Crosse from T. Bland  
Nov. 1881

- Helix* ? label of the late  
D<sup>r</sup> Rijgersma – St Martin
- Glandina minutissima* Guppy Trinidad  
Guppy's label
- Caecilianella* ? Curaçao
- Geostilbia Gundlachi* Pf. St Martin  
D<sup>r</sup> Rijgersma
- " ? Guadeloupe M<sup>r</sup> Marie
- " ? one spec. with *iota* C.B.Ad.  
Jamaica

Camera figures [(Fig. 13)] by M<sup>r</sup> Binney of  
1. *iota* Jamaica



2. *Gundlachi* Tortola – of young specimen & [illegible]
3. ? Curaçao
4. *Glandina minutissima* Guppy Trinidad in tube & under mica
5. *Gundlachi* St Martin
6. " Jamaica
7. *acimta*
8. *Geostilbia (Blandiana)* Loures 2 figs
9. *Gundlachi* Guadeloupe
10. " Cuba
11. *Caecilianella Veracruzensis* C&F Mexico
12. *Geostilbia Caledonica* Cr. N. Caledonia



Fig. 13. Sketches of shells made by W.G. Binney (archive Backhuys).

Bland to Crosse, 7 December 1881

45 & 47 Exchange Place  
N.Y.

7<sup>th</sup> December 1881

M. Crosse  
Paris

My dear Sir,

I had purposed writing to you some time ago, but during the entire late summer I was quite an invalid, and had to give up nearly all work and correspondence.

I desire to place in your hands, and request you to accept, the shells which I enclose, hoping that they will be of some interest to you. The *Helix* from St. Martin, and the little shell from Curaçao may possibly be new.

I also enclose, for your acceptance, Camera sketches, made by W. Binney, named in the enclosed list.

W. Binney has quite given up Natural History studies, his health rendering it necessary.

My West Indian Collection has passed in to the possession, with small exception, of Amherst College, to which the Cabinet of my late friend Prof. C.B. Adams belongs. I however purpose publishing a complete list of the land shells of the West Indies, showing their Geographical Distribution – I am now preparing it.

I have to express to you my thanks for the Journal, and also for the magnificent work on the Mexican shells, which, through some kindness, I have up to and including the 7<sup>th</sup> part.

I believe that a friend of mine will spend this winter in the Bay Islands (Ruantan Is), also visiting Truxillo. He will, should he do so, collect land shells promising a full share to me. I shall, on receiving any, be glad to send specimens to you – they will prove I suppose, more particularly of the Mexican fauna.

Offering to you good wishes  
I am my dear Sir  
yours very truly  
Th. Bland

I shall be glad to hear that my letter reaches you safely.

**Binney to Crosse, 5 March 1882**

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{111 East Union Street,  
Burlington,  
New Jersey.}  
March 5/82

Monsieur Crosse

My dear Sir

In answer to yours of Feb. 20th stating that my subscription to the Journal for 1881 is unpaid, I would state that I have several times written to have the Journal stopped – and finally in June '81 you wrote me that you did not remember my having expressed the desire but that I could cease taking it by returning the two numbers of that year already sent or by sending 18 fr. I could have the volume of 1881 completed. I chose the latter, and do not consider myself responsible for any subscription after that year. Nor do I know even if any subsequent numbers have been sent me, not having during the last year been able to read any books coming by mail, and having absolutely sold all my library, cannot by reference to it see if I have had any more numbers. One came a day or so ago, 1881.part 4, which I will return by mail with this – but I must beg you not to continue to send it.

Yours very truly  
W.G. Binney

**Binney to Crosse, 18 October 1885**

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{222 E. Union Street,  
Burlington,  
New Jersey}  
Oct. 18/85

M H. Crosse

My dear Sir

I send you some memoranda relating to the personal history of my friend Mr Bland, which I hope you will use in a notice of him in the "Journal".

Yrs very truly  
W.G. Binney

[Attached was the hand-written text of the obituary which was, with some minor changes, published by BINNEY (1885)]

## Notes

- (1) Charles Baker Adams (1814-1853) was interested in natural history at an early age. After graduating at Amherst College, he worked at several Colleges in the northeastern U.S.A. before returning as professor of zoology at Amherst in 1847. He visited Jamaica on several occasions and shared the interest for West Indian molluscs with Bland. He died during a visit to Robert Swift on St. Thomas (BLAND, 1865).
- (2) Charles Moore Wheatley (1822-1882). See R.I. JOHNSON (1959) for notes on his collection.
- (3) John Howard Redfield (1815-1895) . See R.I. JOHNSON (2006: 12-14).
- (4) Temple Prime (1832-1903) was an American diplomat who was based several years in different European countries, among which France and the Netherlands. He was also a conchologist, mainly known as specialist of the bivalve families Corbiculidae and Sphaeriidae.
- (5) Auguste Sallé (1820-1896), traveller and field collector, mainly known as entomologist and ornithologist who collected also many molluscs during his travels. He visited Guatemala and the Dominican Republic in the 1840s, later also Cuba and Mexico in the 1850s.
- (6) Robert Eaglesfield Griffith Swift (1796–1872), was an American businessman who was born in Philadelphia, but lived for the greater part of his life in Venezuela (as employee of the Bolivar Mining Association between 1824 and 1835) and on the Caribbean island St. Thomas, where he settled as a merchant. His close friendship with Bland was expressed by the latter in an obituary note as follows: “His friend and intimate correspondent for upward of twenty years, Mr. Thomas Bland, of New York, in his various publications on the geographical distribution of terrestrial mollusca in the West Indies, gratefully acknowledges his obligations to Mr. Swift” (Bland in CLENCH, 1938).  
In 1870, R.G. Haliburton from Halifax made a business trip to the West Indies and went at least to St. Martin, St. Eustatius and St. Thomas. On St. Martin he visited H.E. van Rijgersma (1835–1877), a resident doctor who, was employed by the Dutch government. He had a broad interest in all things natural, and had a large collection of shells, insects and fossils. Haliburton also visited Swift on St. Thomas. Swift must have been impressed by what Haliburton told him about the van Rijgersma collection, because very soon Swift started writing letters to van Rijgersma. Thus started a correspondence which ended in 1872 with the death of Swift. Five letters by Swift to van Rijgersma have survived, the earliest letter was written on 16 May 1870. Bland continued the exchange of letters and material with van Rijgersma. This ended with the death of van Rijgersma in 1877. The wife of van Rijgersma consulted Bland about the possible sale of the van Rijgersma collection. Bland himself did not appear interested and advised that the collection be sold in Europe. Thus ended an exchange profitable for both.
- (7) Data on the average crossing time of boats from France to the U.S.A. is not readily available. And there is a difference between passenger ships, cargo ships and mail packet ships. Most information is available about the transit times between England and the U.S.A. We could take that as the minimum times for the crossing from Le Havre to U.S.A. The following is based on information from different internet sources related to naval and transportation history.  
Until the 1850's, sea currents and wind had a dominant effect on transit times, and ships followed different routes depending on whether they were going westward or eastward.  
By far the principal "all season" west-bound route from NW European ports to the Atlantic coast of North America was the "Southern Route" via the English Channel, then SW past the Azores. At about 20° N latitude the route turned W, ultimately veering to the NW or northerly, depending upon which port in the Savannah-Halifax range was the intended destination. There were two other routes available. In the months of autumn, a "Northern Route" became a possible option, whereby ships would pass to the west of the British Isles, heading for a position approximately 55° N latitude / 30° W longitude, then heading WSW for the Quebex-Halifax range of ports. On rare occasions, it was actually possible to make almost a direct voyage from the SW tip of Ireland to Boston or Newport. Ships following this rare route, but headed for ports in the New York-Baltimore range would veer to the SW about mid-ocean, pass near Bermuda, then approach destination from the SE in order to avoid fighting the powerful Gulf Stream.  
The route back to Europe followed the ENE flow of the Gulf Stream up the North American coast past Halifax and St John's, then across the North Atlantic to a landfall off Cornwall or the SW tip of Ireland. Ships tended to make a slightly more southerly crossing in spring and summer in order to avoid the very dangerous threat of icebergs.

Specific information about the transit times of mail packet ships is scarce. These ships, which were small, fast, had different port destinations and offered albeit at a higher priced postage the fastest service for business purposes or official government use. The travelling times we found makes unfortunately no difference between eastbound and westbound journeys. Given the fact that passenger ships were faster

than mail or cargo ships, we take for the passage from Le Havre to New York in the period 1850-1880 as an absolute minimum ten days for a mail ship.

| Epoch         | Eastbound  | Westbound     | Ship type | Source                                                                                                                                  |
|---------------|------------|---------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1800 - 1850's | 2 weeks +  | 2 weeks +     | Mail      | <a href="https://tinyurl.com/ycd3k4e9">https://tinyurl.com/ycd3k4e9</a>                                                                 |
|               | 21-29 days | 34-46 days    | Cargo     | ALBION (1938: 9-11, 191, 322)                                                                                                           |
| 1850-1880     | 8-10 days  | 8-10 days     | Mail      | <a href="https://tinyurl.com/ycd3k4e9">https://tinyurl.com/ycd3k4e9</a>                                                                 |
| 1855-1880     | 14 days    | 7.5 -9.5 days | Passenger | OSTERHAMMEL, 2014: 714 (E); <a href="https://transportgeography.org/?page_id=2135">https://transportgeography.org/?page_id=2135</a> (W) |

- (8) One of the Bossange family, booksellers and publishers in Paris. See for further details FONTAINE (2016).
- (9) This refers to the American Journal of Conchology, which was founded in 1865 and edited and published by George Washington Tryon jr.
- (10) B.C. Thomas, residing in Brest, was also one of the correspondents of Crosse.
- (11) Robert Furley Geale, an English natural history dealer.
- (12) Rawson William Rawson (1812–1899) held important governing posts in various parts of the British Empire. Obituary: MELVILL (1900).
- (13) James Orton (1830–1877) was a theologian with a strong interest in natural history. He became instructor at the University of Rochester in 1866, and was appointed professor of natural history at Vassar College in 1869. In the 1870 he made several visits to South America where he made extensive studies on geology and physical geography. Obituary: ALBES (1914).
- (14) According to TRYON (1862: 178) Haines had “twelve thousand species of shells, including many rare and unique”.
- (15) Edward Sylvester Morse (1838–1925); for a biography see C.W. JOHNSON (1926).
- (16) John Edward Gray (1800–1875) from the British Museum (Natural History).
- (17) Binney doubtless met Deshayes and Lacaze-Duthiers during his visit to Paris; Gassies resided in Bordeaux, may have visited the Paris museum at the same time, but was at least also a correspondent of Crosse.
- (18) Christoph David Friedrich Weinland (1829–1915), a German zoologist and novelist. He travelled among others in the Caribbean where he studied especially Hispaniola.
- (19) Albert Dod Brown (1841-1866), American amateur malacologist with whom Crosse also corresponded.
- (20) Karl Hermann Berendt (1817–1878), German physician who lived after 1851 in Nicaragua and Mexico (MARTENS, 1901: vii–viii).
- (21) August Boniface Ghiesbreght (1810–1893) was a Belgian zoologist who lived since 1840 in Mexico and collected many animals (PAPAVERO & IBÁÑEZ-BERNAL, 2001: 82–83).
- (22) Edward Palmer (1829–1910), mainly known as botanist.
- (23) Likely this was Wolfgang Ludwig Heinrich Dohrn (1838–1913), who of the two Dohrn brothers published most on continental molluscs.
- (24) William More Gabb (1839–1878), American geologist and palaeontologist, who explored Baja California (DALL, 1909).
- (25) Franz Karl Sarg, also known as Francis Charles, was a German merchant and the Consul for Germany in Guatemala until 1880, when he, his (English) wife Mary Elisabeth Parker, and their son Anthony Frederick moved to Germany (WAGNER, 1991; ANONYMOUS, 2018). Sarg has collected shells and other natural history objects during his stay in Guatemala and Mexico (NISTRÌ, 2010).
- (26) Henry Hemphill (1930–1914) was a Californian conchologist; see ANONYMOUS, 1914.

- (27) Isaac Lea (1792–1886), renowned for his work on freshwater bivalves, was also called “the nestor of American conchologists”. An extensive biography is given by SCUDDER (1885), including a detailed story of Lea’s visit to Europe in the 1850s when he met with many contemporary malacologists.
- (28) John Gould Anthony (1804–1877) is best known for his work on American freshwater species. He was since 1863 in charge of the malacological collection at the Museum for Comparative Zoology in Cambridge MA. Obituary: DALL (1888: 111–112).
- (29) Philip Pearsall Carpenter (1819–1877) was born in England and became a clergyman. Later he moved to Canada and studies especially marine shells. Obituary: DALL (1877).
- (30) Ezekiel Jewitt (1791–1876), a Colonel in the army, mainly known as field collector but later became curator of the New York State Cabinet of Natural History. Obituary: DALL (1877).
- (31) William Healy Dall (1845–1927), palaeontologist at the U.S. Geological Survey and honorary curator at the Smithsonian Institution. Obituary: PILSBRY (1927).
- (32) Louis Emile Eugène Evenor Dupont (1847–1933), who lived on Mauritius, was in contact with various malacologists (BREURE & AUDIBERT, 2017).
- (33) George French Angas (1822–1886), mainly known for his Australian work, moved to England in 1864 and was also a correspondent of Crosse (BREURE & AUDIBERT, 2017).
- (34) Adolphe Boucard (1839–1905) was a French ornithologist and trader in natural history objects. Collected extensively in Mexico, Central and South America (BEOLENS *et al.*, 2011: 33).