The naming of plants from the Humboldt and Bonpland voyage to the Americas, a putatively new genus of Philippi from Chile and Müller's botanical explorations in Australia in the light of Schlechtendal's correspondence (herbarium HAL)

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Abstract: Tkach, N. & Röser, M. 2024: The naming of plants from the Humboldt and Bonpland voyage to the Americas, a putatively new genus of Philippi from Chile and Müller's botanical explorations in Australia in the light of Schlechtendal's correspondence (herbarium HAL). Schlechtendalia **41**: 26–42.

Diederich Franz Leonhard von Schlechtendal (1794–1866) was one of the eminent botanists of the 19th century. From 1833 to 1866 he was Professor of Botany at the University Halle-Wittenberg, where his collection of some 70,000 plant specimens is kept. The herbarium Halle also contains Schlechtendal's correspondence of ca. 5,600 letters from about 500 contemporary colleagues, natural scientists, travelers, and plant collectors. The letters have a special significance for understanding the transfer of scientific knowledge in the 19th century. Therefore, the transliteration, indexing, scanning and digitization of the letters, most of which were written in the old German Kurrent script, was started in order to make them available online to the public. Different aspects of this transfer of knowledge are presented here on the basis of three examples: the processing of the scientific collections of Humboldt's and Bonpland's famous voyage to America, the planned publication of an amazing discovery of a rare plant taxon by Philippi in Chile and the organizational and strategic activity in the processing of overseas plant collections undertaken by the Hamburg pharmacist and botanist Otto W. Sonder, whose letters have recently been edited and published (Schlechtendalia 39: 119–179, 2022).

Zusammenfassung: Tkach, N. & Röser, M. 2024: Die Benennung von Pflanzen der Amerikareise von Humboldt und Bonpland, eine vermeintlich neue Gattung von Philippi aus Chile und Müllers botanische Erforschung Australiens im Lichte der Korrespondenz Schlechtendals (Herbarium HAL). Schlechtendalia **41**: 26–42.

Diederich Franz Leonhard von Schlechtendal (1794–1866) war einer der bedeutendsten Botaniker des 19. Jahrhunderts. Von 1833 bis 1866 war er Professor für Botanik an der Universität Halle-Wittenberg, wo seine Sammlung von rund 70.000 Pflanzenexemplaren noch heute aufbewahrt wird. Das Herbarium Halle enthält auch die Korrespondenz Schlechtendals von ca. 5.600 Briefen von etwa 500 zeitgenössischen Kollegen, Naturwissenschaftlern, Reisenden und Pflanzensammlern. Die Briefe haben eine besondere Bedeutung für das Verständnis des Transfers wissenschaftlicher Erkenntnisse im 19. Jahrhundert. Daher wurde mit der Transliteration, Erschließung, dem Scannen und der Digitalisierung der Briefe, die größtenteils in der alten deutschen Kurrentschrift verfasst wurden, begonnen, um sie der Öffentlichkeit online zugänglich zu machen. Anhand von drei Beispielen werden hier verschiedene Aspekte dieses Wissenstransfers vorgestellt: die Aufarbeitung der wissenschaftlichen Sammlungen der berühmten Amerikareise von Humboldt und Bonpland, die geplante Veröffentlichung einer erstaunlichen Entdeckung eines seltenen Pflanzentaxons durch Philippi in Chile sowie die organisatorische und strategische Tätigkeit bei der Aufarbeitung überseeischer Pflanzensammlungen durch den Hamburger Apotheker und Botaniker Otto W. Sonder, dessen Briefe kürzlich ediert und veröffentlicht worden sind (Schlechtendalia 39: 119–179, 2022).

Key words: Botany, correspondence, herbarium Halle, A. von Humboldt, Linnaea, F. von Müller, R. A. Philippi, scientific publishing, O. W. Sonder

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Introduction

The University Halle-Wittenberg emerged in 1817 under Prussian rule from the union of the university 'Leucorea' founded in Wittenberg (Electorate of Saxony) in 1502 and the Friedrichs University founded in Halle (Electorate of Brandenburg) in 1694. The university herbarium in Halle (international abbreviation HAL) has its origin in this period. Since 1833, Diederich Franz Leonhard von Schlechtendal (1794–1866) was Professor of Botany and Director of the Botanical Garden until his death. During this time, the botanical collections in Halle increased considerably, but Schlechtendal's herbarium remained in his private possession until his death, and was only later acquired by the University. Schlechtendal was one of the most important botanists of the 19th century. During his scientific career, Schlechtendal described and named for the first time about 1,600 new plant taxa (genera, species, etc.), most of them from Central and South America (Heklau 1998). All taxa described by Schlechtendal have been compiled in an extensive annotated list, specifying the type specimens present in HAL and, as far as known, other herbaria (Heuchert et al. 2017).

Before his appointment as professor in Halle in 1833, he had served as Head Curator of the Royal Herbarium in Berlin (1819–1833) since his university education. Numerous sources show how he worked intensively throughout his life to increase the number of plant specimens in his herbarium through communications with renowned collectors and scientists on all continents and his role as editor and publisher of the journals 'Linnaea' (from 1826) and 'Botanische Zeitung' (from 1843), in which many descriptions of new plant species and genera were published. Schlechtendal showed great skill in this, so that extremely important plant collections from Central and South America, Australia and Africa came to Halle in this way.

The herbarium in Halle houses also many duplicates of plant specimens from Berlin, Schlechtendal's former place of work. Schlechtendal was used to having a rich and well-organized herbarium for his scientific work in Berlin, which was not the case in Halle, especially because the important private plant collection of his predecessor in Halle, Kurt Polykarp Joachim Sprengel (1766–1833), could not be purchased for the university herbarium because no funds were available for this purpose. The catalogue of the university herbarium of 1825 compiled by Anton Sprengel (1803–1851), the son of the former, contained ca. 4,700 species (Sprengel 1825). The donation of herbarium specimens from Berlin to Halle, as instigated by Schlechtendal, was thus born out of scientific necessity. Shortly after taking office, Schlechtendal complained in a letter to the management of the university that the existing collection was "so astonishingly meager and deficient" and "does not remotely meet the requirements that one is entitled to make of such a collection in the present time" (Werner 1955: p. 775). Among other things, he suggested to ask the 'Königliche Preussische Pflanzensammlung' (Royal Herbarium) in Berlin for duplicates, whereupon in the following years more than 1,600 plant specimens arrived, among them many from the Willdenow herbarium. Carl Ludwig Willdenow (1765–1812) was director of the Royal Botanical Garden in Berlin from 1801 and one of the formative botanists of his time. In addition, Schlechtendal was bequeathed the extremely extensive private herbarium by his father, Diederich Friedrich Karl von Schlechtendal (1767–1842), which contained many specimens from the Willdenow collection, including specimens from the voyage of Alexander von Humboldt and Aimé Bonpland to the Americas (1799–1804) (see Tkach et al. 2016, 2019).

Schlechtendal's private herbarium, which was sold in 1867 to the University Halle-Wittenberg by his widow, comprised about 70,000 specimens in the ordered part alone. The sale included Schlechtendal's extensive library of botanical works, which was described by Heinrich Gustav Reichenbach (1824–1889) as the best private botanical library in Germany (Reichenbach's letter of 28 September 1861 in the Schlechtendal correspondence collection in the herbarium HAL).

The herbarium of Schlechtendal formed the basis of the present herbarium of the University Halle-Wittenberg (HAL). It is very rich in type specimens, including those of the species newly described by Schlechtendal himself, but also those of many other botanical authors, including G. Bentham, P. E. Boissier, R. Brown, A. P. de Candolle, A. von Chamisso, C. F. Ecklon, A. Gray, A. H. R. Grisebach, C. F. F. Hochstetter, J. D. Hooker, K. S. Kunth, G. Kunze, J. J. H. Labillardière, C. F. von Ledebour, C. F. Lessing, C. F. P. von Martius, E. H. F. Meyer, F. Miquel, F. J. H. Müller, C. G. D. Nees von Esenbeck, P. S. von Pallas, E. F. Poeppig, C. & J. Presl, H. G. L. Reichenbach, A. Richard, C. Schkuhr, C. P. J. Sprengel, E. G. Steudel, C. L. Willdenow, and C. L. P. Zeyher.

Funded by the 'Global Plant Initiative' of the Andrew W. Mellon Foundation in the USA, the search for type specimens and their data indexing and digitization could be realized to a large extent within the framework of a long-term project from 2008–2017. Currently, more than 15,250 type specimens have been identified and processed, which are available as part of the databases 'JACQ Virtual Herbaria' and 'JSTOR Global Plants' as high-resolution images with the detailed associated data on the Internet (JACQ Virtual Herbaria 2023, JSTOR Global Plants 2023).

The collection of Schlechtendal's correspondence with about 500 of his contemporaries comprises about 5,600 letters. The list of his correspondents reads like the 'who is who' of the 19th century: P. E. Boissier, A. L. P. P. de Candolle, A. von Chamisso, J. F. Drège, A. Gray, J. C. von Hoffmannsegg, R. F. Hohenacker, W. J. Hooker, A. von Humboldt, G. Kunze, C. F. P. von Martius, F. Miquel, R. A. Philippi, E. F. Poeppig and others (Schubert 1964, Tkach et al. 2014).

Many botanists sent specimens of new plant taxa to Schlechtendal as gifts for review and publication in the journals 'Linnaea' or 'Botanische Zeitung'. The specimens were usually accompanied by letters to Schlechtendal. There are letters with references to and discussions about many type specimens now

held in HAL (Heuchert et al. 2017). In addition, the letters contain information on itineraries of collectors and buyers of plant collections, on the exchange of plant material and discussions on botany, publication activities, the management of botanical gardens, fundraising and academic matters. The importance of such correspondence is highlighted by the following examples:

Synonymy of the new plant species from the Humboldt and Bonpland voyage to the Americas

It has long been known, and has often caused wonder (McVaugh 1955, Hiepko 2006), why there are so many plant names based on the above-mentioned collections of Humboldt and Bonpland published almost simultaneously by Joseph August Schultes and Johann Jacob Römer and others authors like Johann Georg Christian Lehmann on the one hand and by Karl Sigismund Kunth on the other hand (Tkach et al. 2016; Kirkbride & Wiersema 2020; Taylor et al. 2020). Based on duplicates of the same collection, in some cases identical plant names were independently introduced, for example, *Hedyotis microphylla* Willd. ex Roem. & Schult., Syst. veg., ed. 15 bis [Roemer & Schultes] 3: 526 (1818) and *Hedyotis microphylla* Kunth, Nov. gen. sp. [H.B.K.] 3(13): 389 (1820). In other cases, different plant names were given, for example, *Jacquinia mucronata* Willd. ex Roem. & Schult., Syst. veg., ed. 15 bis [Roemer & Schultes] 4: 802 (1819) and *Jacquinia pubescens* Kunth, Nov. gen. sp. [H.B.K.] 3(11): 251, tab. 246 (1819).

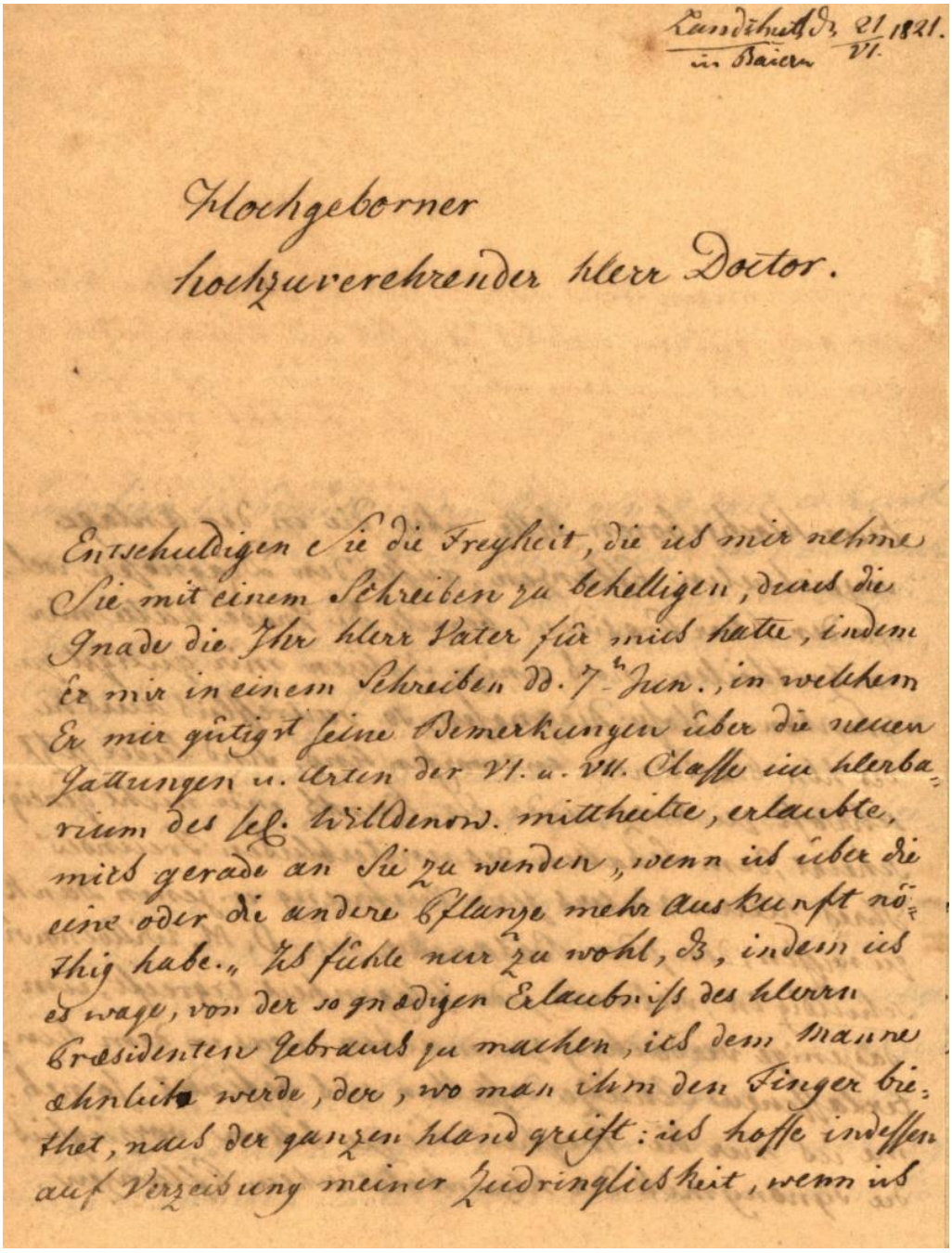
The background to this is the parallel processing of collections from the voyage to America. Humboldt and Bonpland had sent the collection in part to Willdenow in Berlin and had given the larger part to the Muséum national d'Histoire naturelle in Paris. After several unsuccessful attempts with Bonpland and Willdenow, the latter was thoroughly examined and scientifically processed by Kunth on Humboldt's behalf from 1813 onwards (McVaugh 1955).

The diagnoses of the plants of Humboldt and Bonpland published by Schultes and Römer had been written by Willdenow in Berlin and noted on the herbarium specimens (Tkach et al. 2016). These were copied and provided to Schultes and others by Diederich Friedrich Karl von Schlechtendal (the father of D. F. L. von Schlechtendal), who was a lawyer by profession and an enthusiastic naturalist with a specific interest in botany. The elder Schlechtendal also had a close friendship with Willdenow (see above). After Willdenow's death in 1812, he took care of Willdenow's personal herbarium, which was acquired by the Berlin Botanical Garden in 1818. The role of the elder Schlechtendal emerges from a letter from Schultes to Schlechtendal (fil.) dated 6 June 1821, who was still Head Curator of the Royal Herbarium in Berlin at that time (Fig. 1): „Entschuldigen Sie die Freyheit, die ich mir nehme Sie mit einem Schreiben zu behelligen, durch die Gnade die Ihr Vater für mich hatte, indem er mir ein einem Schreiben dd. [= de dato] 7. Jun., in welchem er mir gütigst seine Bemerkungen über die neuen Gattungen u. Arten der VI. u. VII. Classe im Herbarium des sel. [= seligen] Willdenow mittheilte, erlaubte, mich gerade an Sie zu wenden „wenn ich über die eine oder andere Pflanze mehr Auskunft nöthig habe". Ich fühle nur zu wohl, dass, indem ich es wage, von der so gnädigen Erlaubnis des Herren Präsidenten [Schlechtendal Vater war Gerichtspräsident] Gebrauch zu machen, ich dem Manne ähnlich werde, der, wo man ihm den Finger bietet, nach der ganzen Hand greift: ich hoffe indessen auf Verzeihung meiner Zudringlichkeit, wenn ich Euer Hochgeboren bitte über die in der Anlage verzeichneten Pflanzen, außer den Diagnosen, welche der Herr Präsident bereits die Gnade hatte mit mitzutheilen, noch einige Notizen mir gütigst zu schenken. Bloße Diagnosen, so vortrefflich auch die des Herrn Präsidenten entworfen sind, sind leider jetzt sehr oft zu kurz, u. da Hr. Kunth [unterstrichen] mir nicht geneigt scheint, dem Schatten des unsterblichen Freundes Ihres Herrn Vaters jene Verehrung u. jenen Dank zu wissen, den jeder Botaniker den D.M. [= Dis Manibus = des Grabes] Willdenowi schuldig [unterstrichen] ist, vielmehr jede Gelegenheit ergreift, um dasjenige verdächtig zu machen, was in dem hinterlassenem Schatze desselben sich befindet, so nehme ich mir die Freyheit Sie zu bitten, vorzüglich die Synonymik der Humboldt'schen Pflanzen, insofern sie bereits in den Nov. gen. & spec. ed. Kunth [unterstrichen] erschienen sind, zu berücksichtigen."

English translation:

"Excuse the liberty I take to bother you with a letter, through the grace due your father had for me, in that he allowed me a letter dated 7 June, in which he graciously informed me of his remarks about the new genera and species of the VIth and VIIth Class in the herbarium of the late Willdenow, he allowed me to turn to you 'if I need more information about one or another plant'. I feel only too well that, by daring to make use of the gracious permission of the President [the elder Schlechtendal was Court

President], I am becoming similar to the man who, when offered the finger, reaches for the whole hand: I hope, however, for forgiveness of my importunity, if I ask Your High-born to graciously give me some notes about the plants listed in the appendix, in addition to the diagnoses, which the President has already had the grace to share with me. Mere diagnoses, as excellently drafted as those of the President are, are unfortunately now very often too short, and since Mr. Kunth [underlined] does not seem to me inclined to pay to the shadow of your father's immortal friend the reverence and gratitude which every botanist should show [underlined] to the late Mr Willdenow, rather seizes every opportunity to make suspect that which is in the treasure he has left behind, so I take the liberty to ask you, to take into account especially the synonymy of Humboldt's plants, in so far as they are already in the Nov. gen. & spec. ed. Kunth [underlined]."

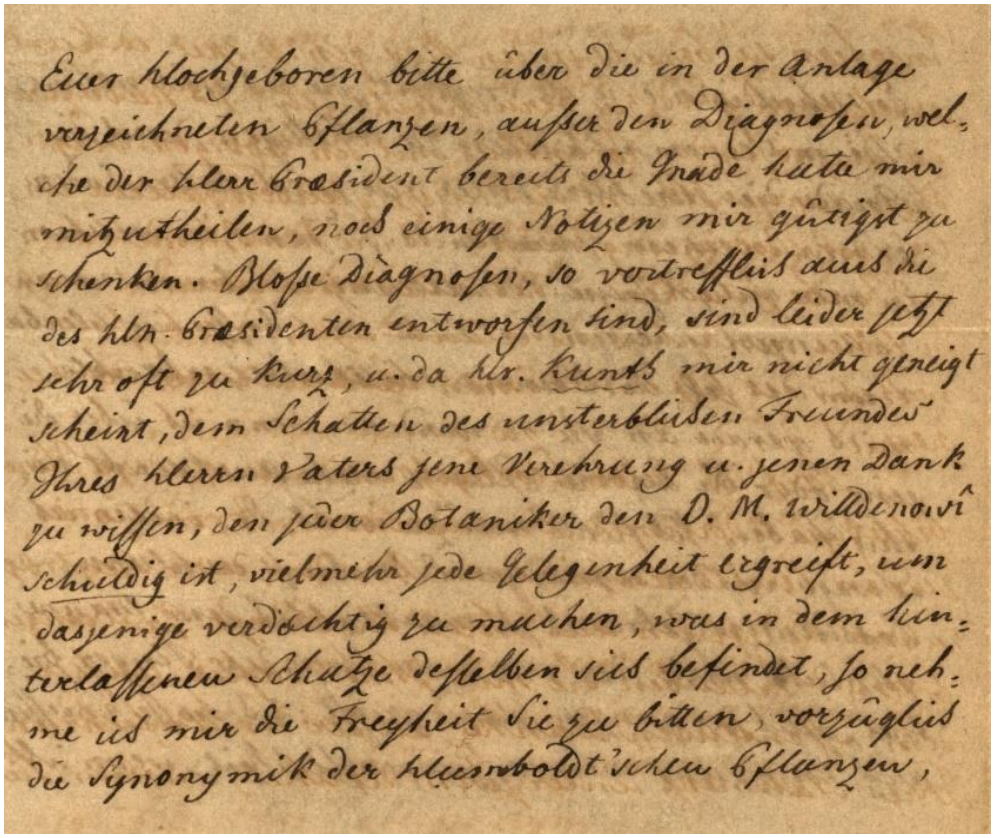


Landshut d. 21 VI. 1821. in Baiern

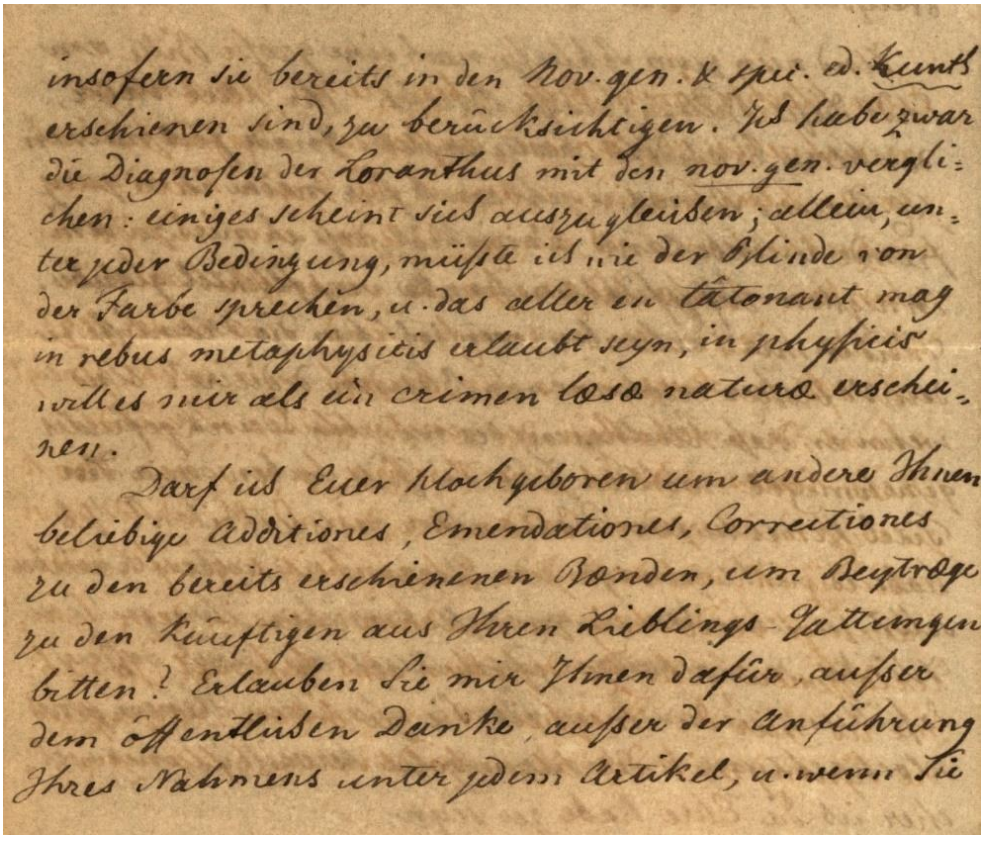
Hochgeborner
hochzuverehrender Herr Doctor.

Entschuldigen Sie die Freyheit, die ich mir nehme Sie mit einem Schreiben zu behelligen, denen die Gnade die Ihr Herr Vater für mich hatte, indem Er mir in einem Schreiben dd. 7ten Jun., in welchem Er mir gütigst seine Bemerkungen über die neuen Gattungen u. Arten der VI. u. VII. Classe im Herbarium des sel. Willdenow. mittheilte, erlaubte, mich gerade an Sie zu wenden, wenn ich über die eine oder die andere Pflanze mehr Auskunft nöthig habe., Ich fühle mich zu wohl, da, indem ich es wage, von der so gnädigen Erlaubniß des Herrn Presidenten Gebrauch zu machen, ich dem Manne ähnlich werde, der, wo man ihm den Finger biethet, nach der ganzen Hand greift: ich hoffe indessen auf Verzeihung meiner Zudringlichkeit, wenn ich

Fig. 1: Letter of Johann August Schultes from 6 June 1821 to Schlechtendal, at that time Head Curator of the 'Königliches Preussisches Herbarium' in Berlin. — Schlechtendal's letter collection in the herbarium of the University Halle-Wittenberg.



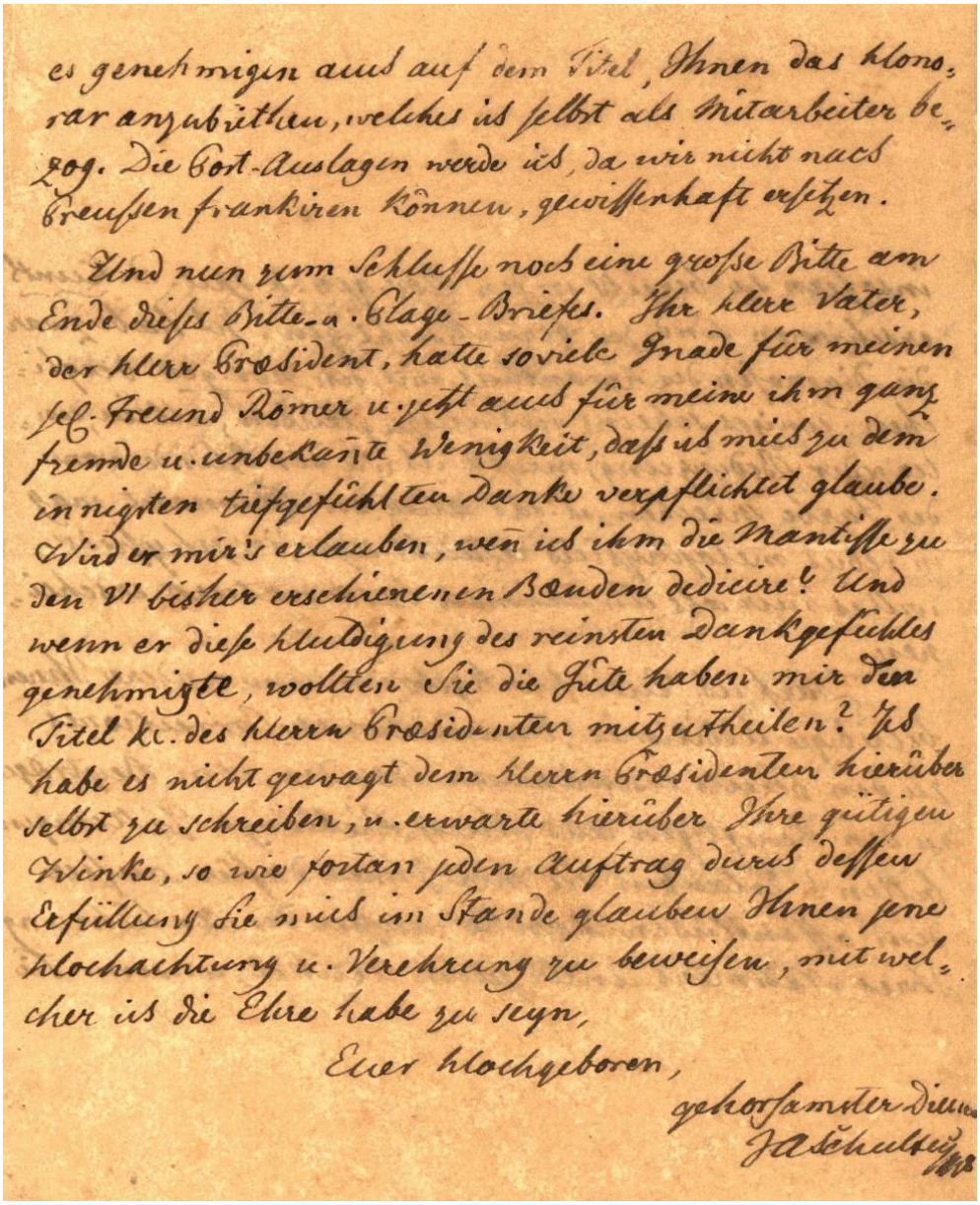
Euer Hochgeboren bitte über die in der Anlage verzeichneten Pflanzen, ausser den Diagnosen, welche der Herr Präsident bereits die Gnade hatte mir mitzutheilen, noch einige Notizen mir gütigst zu schenken. Bloße Diagnosen, so vortrefflich auch die des hlr. Präsidenten entworfen sind, sind leider jetzt sehr oft zu kurz, u. da hr. Kunth mir nicht geneigt scheint, dem Schatten des unsterblichen Freundes Ihres Herrn Vaters jene Verehrung u. jenen Dank zu wissen, den jeder Botaniker den D. M. Willdenowî schuldig ist, vielmehr jede Gelegenheit ergreift, um dasjenige verdächtig zu machen, was in dem hinterlassenen Schatze desselben sich befindet, so nehme ich mir die Freyheit Sie zu bitten, vorzüglich die Synonymik der Humboldt'schen Pflanzen,



insofern sie bereits in den Nov. gen. & spec. d. Kunth erschienen sind, zu berücksichtigen. Ich habe zwar die Diagnosen der Loranthus mit den nov. gen. verglichen: einiges scheint sich auszugleichen; allein, unter jeder Bedingung, müßte ich wie der Blinde von der Farbe sprechen, u. das selbst en tâtonant mag in rebus metaphysicis erlaubt seyn, in physicis will es mir als ein crimen laesae naturae erscheinen.

Darf ich Euer Hochgeboren um andere Ihnen beliebige Additiones, Emendationes, Correctiones zu den bereits erschienenen Bänden, um Beytrage zu den künftigen aus Ihren Lieblings-Familien bitten? Erlauben Sie mir Ihnen dafür, ausser dem öffentlichen Danke, ausser der Anführung Ihres Nahmens unter jedem Artikel, u. wenn Sie

Fig. 1: (continued.)



es genehmigen auch auf dem Titel, Ihnen das Honorar anzubiethen, welches ich selbst als Mitarbeiter bezog. Die Port-Auslagen werde ich, da wir nicht nach Preussen frankiren können, gewissenhaft ersetzen.

Und nun zum Schlusse noch eine grosse Bitte am Ende dieses Bitte- u. Klage-Briefes. Ihr Herr Vater, der Herr Präsident, hatte soviele Gnade für meinen sel. Freund Römer u. jetzt auch für meine ihm ganz fremde u. unbekannte Wenigkeit, dass ich mich zu dem innigsten tiefgefühlten Danke verpflichtet glaube. Wird er mir's erlauben, wenn ich ihm die Manisse zu den VI bisher erschienenen Bänden dedicire! Und wenn er diese Huldigung des reinsten Dankgefühles genehmigte, wollten Sie die Güte haben mir den Titel kl. des Herrn Präsidenten mitzutheilen? Ich habe es nicht gewagt dem Herrn Präsidenten hierüber selbst zu schreiben, u. erwarte hierüber Ihre gütigen Winke, so wie fortan jeden Auftrag durch dessen Erfüllung Sie mich im Stande glauben Ihnen jene Hochachtung u. Verehrung zu beweisen, mit welcher ich die Ehre habe zu seyn,

Euer Hochgeboren,

gehorsamster Diener

J. A. Schultes

1821

Fig. 1: (continued.)

The letter shows that the diagnoses for the plants of Humboldt and Bonpland were not written by Schultes and Römer themselves, but had been made by Willdenow who left them unpublished in his herbarium. The names and often imperfect descriptions were copied and sent to them by the elder Schlechtendal. Furthermore, Schultes asked Schlechtendal (fil.) in this letter for additional information on Humboldt and Bonpland specimens in Willdenow's herbarium in Berlin, repeating at the same time the disapproval of Kunth expressed by many of his contemporaries and colleagues (McVaugh 1955), which may certainly also reflect an undercurrent of Prussian/German-French hostility. In the following year (letter of 28 August 1822), Schultes repeated his appeal to Schlechtendal (fil.) to send him any "addenda", presumably he meant further diagnoses, for publication. He again stated that Kunth has become so ungrateful to Willdenow ["gar so undankbar an Willdenow geworden ist"], while saving Willdenow's heritage would be a wish of all botanists and generally a criticism of Kunth coming from Willdenow's herbarium ["vorzüglich wären … die Servata Willdowiana ein Desiderium Botanicorum,… überhaupt eine Kritik von Kunth aus Willdenow's Herbarium". Apparently Schultes tried to drag Schlechtendal (fil.), who was by now as Chief Curator of the Royal Herbarium responsible

for Willdenow's collection, into this dispute. However, our research has not found any such contributions by Schlechtendal (fil.) on this topic.

On the other hand, Kunth complained in various articles (e.g., Kunth 1818a, 1820, 1822; Anonymous 1820, presumably written by Kunth himself) that he was denied information about the Berlin collection of Humboldt and Bonpland, while other botanists such as Römer, Schultes, and Lehmann received it, although he had been commissioned by Humboldt in 1813 to scientifically process the plants of the American voyage. He repeatedly criticized the fact that provisional names noted by Willdenow in his herbarium and superficial, sometimes even incorrect diagnoses by Willdenow were published by various authors without any verification, which he considered detrimental to Willdenow's reputation (Kunth 1820). In the Latin preface to the "Synopsis plantarum", Kunth explicitly held the elder Schlechtendal responsible for this practice: "…Ut omnes sciunt, Humboldtius et Bonplandius majorem partem plantarum in America æquinoctiali collectarum, rara liberalitate, Willdenowio transmiserant. Qua fiducia Willdenowius nunquam abusus est, neque, si vitam produxisset, unquam fuisset abusurus. Aliter sentiebat nobilissimus de Schlechtendal, amicus Willdenowii, qui post ejus obitum aliquamdiu inter manus herbarium habuit. Plantas Humboldtianas ibi repertas, nobis non consentientibus, licet semper ad consentiendum paratissimis, cum aliis botanicis communicavit; cœcaque amicitia in errorem abreptus, atque existimans, omnia quæ Willdenowius reliquisset æque bona ac publici juris digna esse, diagnoses observationesque, quas defunctus plantis adscripserat, diligenter collegit; et sicubi eum errasse animadvertit, emendare conatus, interdum ipse quoque offendit. Commentarios quos hunc in modum conscripsit, cum librarium non invenisset, in Römeri et Schultesii *Systemate vegetabilium*, tertiis erroribus auctos, in scientiæ, gloriæ Willdenowii et ipsius detrimentum, edere cœpit; vulgatque eo ipso tempore, quo nos magna diligentia et summis impensis plantas nostras describimus et iconibus illustramus. Quo factum est, ut complures sub duobus tribusve nominibus exstent. Ac mirari subit, qui fiat, ut multæ a Willdenowio generibus familiisque haud idoneis adsociatæ, aliæ cognitæ ut novæ, novæ ut cognitæ descriptæ sint…" (Kunth 1822, p. i-iij).

English translation:

"…As everyone knows, Humboldt and Bonpland had transmitted, with rare liberality, the greater part of the plants collected in equatorial America to Willdenow. Willdenow never abused this trust, nor would he have abused it if he had lived. The nobleman of Schlechtendal, a friend of Willdenow, who for some time after his death had the herbarium in his hands, felt otherwise. The Humboldtian plants found there, not agreeing with us, although always ready to agree, he shared with other botanists; and blind friendship carried away into error, and thinking that all that Willdenow had left was equally good and worthy of public law, he diligently collected the diagnoses and observations which the deceased had ascribed to the plants; and whenever he noticed that he had erred, he tried to correct it, and sometimes he also stumbled. The commentaries which he had written in this manner, when he had not found a publisher, he began to publish them in the *Systema Vegetabilium* of Römer and Schultes, augmented by third party errors, to the detriment of science, Willdenow's glory, and to himself; and it spreads at the very time when we describe our plants with great care and at great expense and illustrate them with images. As a result, several of them exist under two or three names. And it is to be wondered at, that many of Willdenow's names are associated with inappropriate genera and families, known ones are described as new, and new ones as known..."

The German-Chilean naturalist and polymath R. A. Philippi and the fate of his *Anthochortum pulchellum*

The letter collection of Schlechtendal comprises about 14 letters and letter fragments of Rudolf Amandus Philippi (1808–1904), a German emigrant to Chile. He carried out extensive natural history work and served as Director of the Chilean National Museum, where he considerably expanded the collections (Reiche 1904, Zirnstein 2010). Philippi described almost 4,500 plant taxa, including quite a few in publications printed by Schlechtendal in 'Botanische Zeitung' and 'Linnaea'. The letters include, for example, the essay Philippi's on a new genus of the Solanaceae, *Latua* Phil., published in 'Botanische Zeitung', in which the extreme poisonous effect of this plant on humans was also described (Philippi 1858). On the letter there are additions and deletions in Schlechtendal's handwriting, so that it is recognizable that this letter served the journal typesetter directly as a template

["Gebauer-Schwetschke'sche Buchdruckerei [printing office] in Halle" printed at the bottom of p. 248 in Botanische Zeitung (Berlin) 16(33), 1858].

Of the other letters, only cut-out parts have survived. For example, of a letter Philippi wrote on 13 August 1857 only two fragments are still preserved, namely the upper and lower part of the sheet, while the middle part is missing. On the lower part of the back of the letter there is a 7-line Latin diagnosis of a supposedly new genus or possibly even new family written by Philippi in particularly legible handwriting (Fig. 2). It begins with "Anthochortum novum Genus novae Familiae?", followed by a 3-line species description of "A. pulchellum Ph." and the locality statement "Frequens in montibus insularum Chonos dictarum arboribus minus confertis obtectis." From the beginning of the letter, it appears that this plant was apparently found by Franz Fonk, "Arzt der Deutschen Colonie in Puerto Montt" [physician of the German colony in Puerto Montt, Chile], who frequently collected for Philippi, "im verflossenen Sommer auf einer Expedition nach den Chonos-Inseln" [in the past summer on an expedition to the Chonos Islands]. There is also a beautiful ink drawing by Philippi of the plant, on which the preliminary pencil drawing can still be seen (Fig. 3).

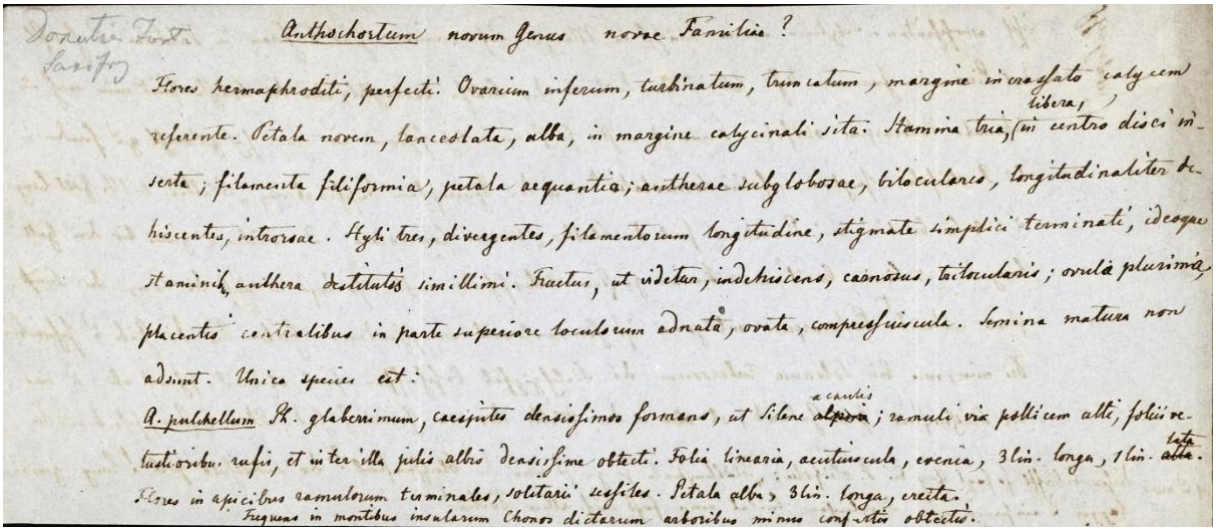

Donatia Forst.
Saxifrag
Anthochortum novum Genus novae Familiae?
Flores hermaphroditi, perfecti. Ovarium inferum, turbinatum, truncatum, margine incrassato calycem referente. Petala novem, lanceolata, alba, in margine calycinali sita. Stamina tria, libera, in centro disci inserta; filamenta filiformia, petala aequantia; antherae subglobosae, biloculares, longitudinaliter dehiscentes, introrsae. Styli tres, divergentes, filamentorum longitudine, stigmata simplici terminati, ideoque staminibus anthera destitutis simillimi. Fructus, ut videtur, indehiscens, carnosus, trilocularis; ovula plurima, placentis centralibus in parte superiore loculorum adnata, ovata, compressiuscula. Semina matura non adsunt. Unica species est:
A. pulchellum Ph. glaberrimum, caespites densissimos formans, ut Silene acaulis; ramuli vix pollicem alti, foliis veluti oribus rufis, et inter illa pilis albis densissime obtecti. Folia linearia, acutiuscula, evenia, 3 lin. longa, 1 lin. lata. Flores in apicibus ramulorum terminales, solitarii sessiles. Petala alba, 3 lin. longa, erecta.
Frequens in montibus insularum Chonos dictarum arboribus minus confertis obtectis.

Fig. 2: Cut-off lower part of a letter sheet belonging to a letter from R. A. Philippi to Schlechtendal, dated 13 August 1857. The text is written in particularly careful, clear handwriting and was obviously intended to be passed directly to the typesetter. The text reads: "Anthochortum novum Genus novae Familiae? Flores hermaphroditi, perfecti. Ovarium inferum, turbinatum, truncatum, margine incrassato calycem referente. Petala novem, lanceolata, alba, in margine calycinali sita. Stamina tria, libera, in centro disci inserta; filamenta filiformia, petala aequantia; antherae subglobosae, biloculares, longitudinaliter dehiscentes, introrsae. Styli tres, divergentes, filamentorum longitudine, stigmata simplici terminati, ideoque staminibus anthera destitutis simillimi. Fructus, ut videtur, indehiscens, carnosus, trilocularis; ovula plurima, placentis centralibus in parte superiore loculorum adnata, ovata, compressiuscula. Semina matura non adsunt. Unica species est: A. pulchellum Ph. glaberrimum, caespites densissimos formans, ut Silene acaulis; ramuli vix pollicem alti, foliis veluti oribus rufis, et inter illa pilis albis densissime obtecti. Folia linearia, acutiuscula, evenia, 3 lin. longa, 1 lin. lata. Flores in apicibus ramulorum terminales, solitarii sessiles. Petala alba, 3 lin. longa, erecta. Frequens in montibus insularum Chonos dictarum arboribus minus confertis obtectis." — Schlechtendal's letter collection in the herbarium of the University Halle-Wittenberg.

Both this drawing and the diagnosis were never printed, however, because firstly Philippi wrote in a letter to Schlechtendal four weeks later (14 September 1857) that he had been informed by August Heinrich Rudolf Grisebach (1814–1879), Professor of Botany in Göttingen, that the name *Anthochortum* had already been given by Nees for a genus of the *Restionaceae*, and asked that the name *Chartanthus* be used.

Also the latter name was not published, because secondly Schlechtendal seemed to have noticed that Philippi's plant pertained to the genus *Donatia* J.R.Forst. & G.Forst., described already 82 years earlier (Forster & Forster 1775). Schlechtendal wrote "*Donatia* Forst." in pencil in the upper left corner of the paper sheet with Philippi's handwritten diagnosis of *Anthochortum* and added "Saxifrag" below it (Fig. 2). He probably meant the *Saxifragaceae*, which was formerly delimited in an extremely broad sense (cf. among others still Engler 1930). *Donatia* is either placed in the *Donatiaceae* consisting of this single genus, which is southern hemispheric, South American-Tasmanian-New

Zealand disjunct or with a few other genera in the *Stylidiaceae*, which then additionally occurs in Southeast Asia, but is equally absent in Africa (Carolin 2007).

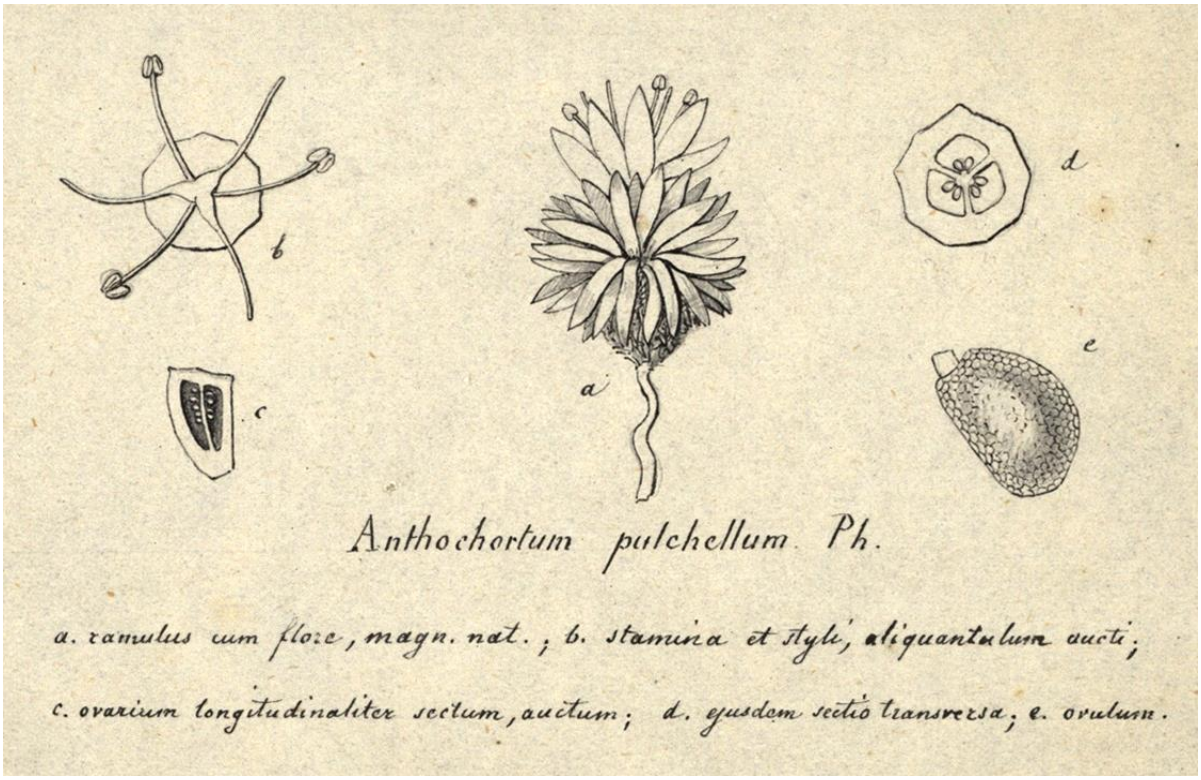


Fig. 3: Original ink drawing by R. A. Philippi with still faintly recognizable preliminary drawing executed in pencil. The detailed drawing shows features of the genus "*Anthochortum*" Philippi intended to describe. The plant belongs to the genus *Donatia* J.R.Forst. described already in 1775 by father and son Forster and represents *D. fascicularis* J.R.Forst. & G.Forst., which was noticed by Schlechtendal, so that Philippi's supposed new taxa were omitted. The whole legend Philippi's reads: "Anthochortum pulchellum Ph. a. ramulus cum flore, magn. nat.; b. stamina et styli, aliquantulum aucti; c. ovarium longitudinaliter sectum, auctum; d. ejusdem sectio transversa; e. ovulum." — Schlechtendal's letter collection in the herbarium of the University Halle-Wittenberg.

Schlechtendal, in contrast to Philippi, seemingly knew the work "Characteres generum plantarum quas in itinere ad insulas maris australis collegerunt..." by father and son Forster, which contained an exactly correct diagnosis (p. 5) and correct illustration (Tab. V) of their new genus *Donatia* with the single species *D. fascicularis* included (Forster & Forster 1775), thus even conspecific with the plant Philippi's, as only this one species (Fig. 4) restricted to the Cono Sur occurs in South America (Ulloa Ulloa et al. 2018 onwards). Schlechtendal probably owned the 2nd edition (1776) of this work by Forster & Forster. A copy of this edition is in the Halle University and State Library, and we assume that it comes from Schlechtendal's extensive private library, which was acquired by the university after his death (see above). Moreover, Schlechtendal was certainly familiar with the famous voyage of discovery of the Forsters, namely the participation in the 2nd circumnavigation of the world (1772–1775) under the English captain James Cook and the extensive work of father and son Forster as naturalists. The former had studied at the University Halle, was Professor there from 1779 and lived in Halle until his death in 1798.

However, one cannot blame Philippi for his allegedly new genus "*Anthochortum*", because in his letters to Schlechtendal he repeatedly complained about the lack of necessary scientific literature available to him and the extremely slow procurement of it by the national library of Chile. In the present example, Philippi had absolutely correctly recognized that his material represented a plant that did not belong to any of the families known to him, and he made a diagnosis that was as extensive as it was accurate, as well as a detailed and nice drawing of it, which underlines his outstanding talent as a natural scientist.



Fig. 4: *Donatia fascicularis* J.R.Forst. & G.Forst. (*Stylidiaceae*), a species confined to the Cono Sur of South America. **a.** Cushion-forming sub-shrub. **b.** Leaf rosettes and flowering shoots, **c.** Flowers. — Photographs taken by D. Barthelemy, https://identify.plantnet.org/de/the-plant-list/observations/1009189308, CC BY NC 4.0 (a, b) and by N. Exe in Los Lagos (Chile), https://www.inaturalist.org/photos/60314921, CC BY 4.0 (c).

The Hamburg pharmacist and botanist O. W. Sonder as coordinator of scientific collection processing

The Hamburg pharmacist and dedicated botanist Otto Wilhelm Sonder (1812–1881) maintained regular correspondence with Schlechtendal that lasted at least over 23 years (1843–1865). Sonder's 40 extant letters (Fig. 5) to Schlechtendal have been transliterated, with detailed comments on the botanical content (Tkach et al. 2022).

Sonder was interested in various botanical topics, including algae in particular but also several seed plant families, for example, *Asteraceae* and *Epacridaceae*. On all these topics, he wrote numerous scientific publications, including a flora of Hamburg and treatments of various plant families, and he also acted as co-editor of larger floras, for example the 'Flora capensis', of which he edited volumes 1–3 together with the Irish botanist William Henry Harvey (1811–1866). Sonder is considered one of the most important experts on marine algae in the 19th century (Kies 1987).

During his life he amassed a huge private herbarium, which included more than 300,000 specimens mostly from overseas. He spent considerable funds on the purchase of collections. Unfortunately, after his death the herbarium was not preserved as a whole in Hamburg, but was sold in parts, partly via auction. His original herbarium specimens with their typical labels can be found in many herbaria of the world. Most scientists working with plant collections have probably seen specimens from the Sonder collection. The most important parts of Sonder's herbarium are today in Melbourne (see below) and Stockholm (Stafleu & Cowan 1985).

Based on his location in the port city of Hamburg with its world-wide shipping connections, Sonder was an important intermediary for the shipment of dispatches from botanists who were researching and collecting in other continents, e.g., in Australia, South Africa, and the tropics of the New World, especially of lichens, algae, mosses, ferns and seed plants. He subsequently arranged the redistribution of the collections to specialists in Europe, who took over the processing of the corresponding plant groups, and the publication of descriptions of new taxa and/or floristic contributions. Sonder maintained contacts with the respective scientists, and arranged the submission of manuscripts to Schlechtendal, who printed many of them in 'Linnaea'. Sonder himself urged the authors to hurry and reminded defaulting authors to hand in the manuscripts as can be seen from his letters to Schlechtendal (Tkach et al. 2022). In many cases, he revised the manuscripts himself, standardizing them and ensuring that they were in an acceptable form for publication. In some cases, he even rewrote the manuscripts himself in his legible handwriting (Tkach et al. 2022).

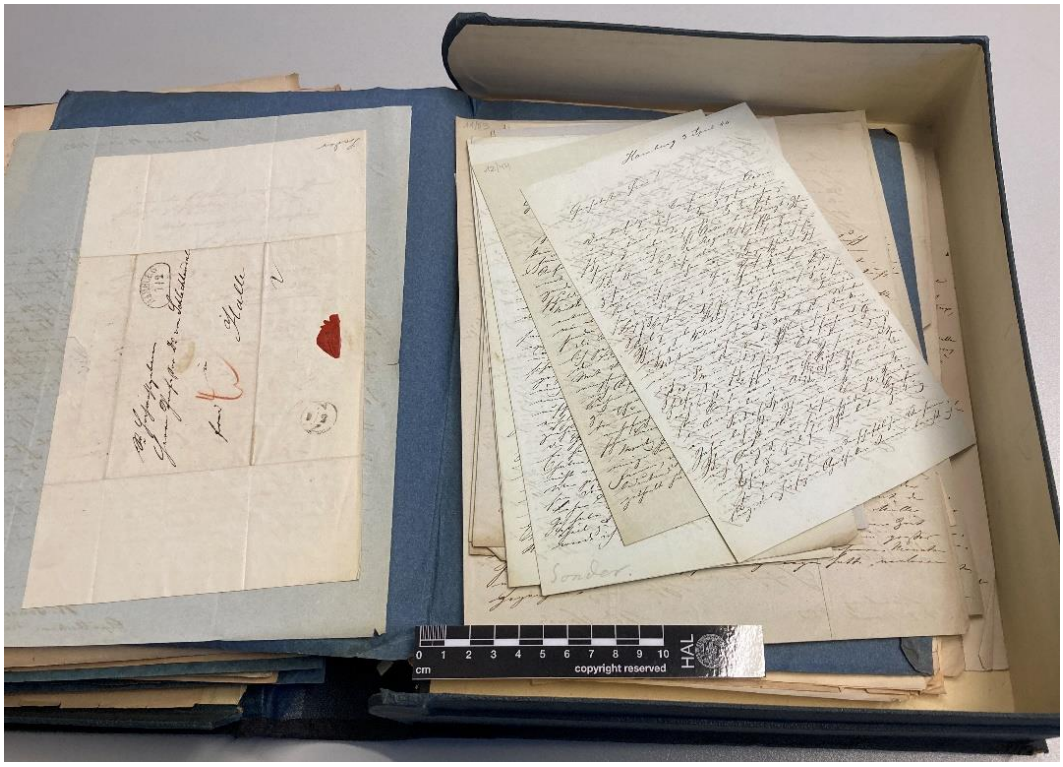


Fig. 5: Opened storage folder with the letters of W. Sonder. — Schlechtendal's letter collection in the herbarium of the University Halle-Wittenberg.

Sonder and the famous explorer of the Australian flora, Ferdinand Müller (1825–1896), who also arranged for the purchase of Sonder's herbarium specimens by the herbarium in Melbourne, had a particularly close friendship. Both had known each other since their pharmaceutical training in Holstein and their studies in Kiel. Müller, who suffered from tuberculosis, emigrated with his two sisters to Australia in 1847, where he was especially engaged in the study of the flora of the southern regions (Voigt 1996, Jahn 1997). Müller's research activities in Australia and his scientific contributions were recognized by the British colonial government of Victoria, and Müller was appointed as the 'Colonial Botanist' in 1852, which made his work in the country much easier. Overall, he received numerous honors from various countries and more than 150 scientific societies in recognition of his services as a naturalist (Jahn 1997).

From the early 1850's, Müller sent numerous plant specimens to Sonder, which led to the publication of the 'Plantae Muellerianae' in 'Linnaea' in several parts from volume 25 (1852) to 29 (1858). Sonder's multifaceted and time-consuming activity in distributing the collections to the numerous scientific experts, organizing the taxonomic processing of the new material, and preparing manuscripts and publications can be seen in his letter of Sonder to Schlechtendal of 8 August 1852, in which he writes:

„Wegen des Druckes des Müller'schen Manuskriptes [vgl. Müller 1853] würde ich in einer Zeit doch an Sie geschrieben haben, nur erwarte ich noch eine neue Zusendung vom Manuskript, die nach einem, kürzlich von Müller erhaltenen Briefe in einigen Wochen mit einem über Indien gegangenen Schiffe ankommen muß, Müller hat die Pflanzen selbst bestimmt u die neuen Arten selbst beschrieben. Ich bin noch unschlüssig gewesen, ob ich eine vollständige Aufzählung seiner Pflanzen, inclusive der schönen, von Stuart [schottischer Entdeckungsreisender] auf Vandiemensland [Tasmanien] gesammelten, geben soll, oder ob nur die Diagnosen der neuen Arten zu drucken sind. Ich möchte mich fast für Letzteres entscheiden. Die Zahl ist schon ziemlich bedeutend, es sind auch alle von Dr. Behr [Pflanzensammler in Australien] gesammelten, die Müller übernommen hat, dabei, ich bedauere nun, daß mir in den letzten Jahren so wenig Muße übrig geblieben ist, um die Sache noch genau durchzuarbeiten. Die letzte, vor einigen Wochen angekommene Kiste enthielt wenigstens 5–6000 Exemplare, und mehrere Familien, die früher vernachlässigt schienen, sind jetzt herrlich vertreten, z. b. die Rhamneae, Gramineae, Orchideae, letztere 50–60 Arten. Ich wollte mit dem Drucke auch gerne noch so lange warten, bis ich mit der Bestimmung der Algen fertig bin, die Moose und Flechten hat Hampe [deutscher Bryologe] durchgenommen u es könnte dann das Ganze mit einem Male gedruckt werden. Müller hat eine große Reise ins Innere gemacht namentlich nach den Gegenden, wo Capt. Sturt [britischer Offizier, erkundete Australien] gewesen ist, er spricht von höchst interessanten Pflanzen, die er dort gesammelt hat und die in einigen Monaten hier [d. h., in Hamburg] ankommen sollen."

English translation:

"Because of the printing of Müller's manuscript [see Müller 1853], I would have written to you in a while, but I am still waiting for a new manuscript, which, according to a letter recently received from Müller, must arrive in a few weeks on a ship that has sailed via India, Müller has identified the plants himself and described the new species himself. I have been undecided whether to give a complete list of his plants, including the beautiful ones collected by Stuart [Scottish explorer] on Vandiemensland [Tasmania], or whether to print only the diagnoses of the new species. I would almost opt for the latter. The number is already quite significant, and all the plants collected by Dr. Behr [plant collector in Australia], which Müller has taken over, are also included; I now regret that I have had so little time left in recent years to work through the matter in detail. The last box, which arrived a few weeks ago, contained at least 5–6,000 specimens, and several families, which seemed neglected in the past, are now splendidly represented, e.g., the Rhamneae, Gramineae, Orchideae, the latter 50–60 species. I would also like to wait with the printing until I have finished with the identification of the algae, the mosses and lichens have been dealt with by Hampe [German bryologist] and the whole could then be printed in one go. Müller has made a long journey into the interior, namely to the areas where Capt. Sturt [British officer, explored Australia] has been, he speaks of extremely interesting plants that he has collected there and which should arrive here [i.e., in Hamburg] in a few months."

As shown in the letters, Sonder was an important intermediary for scientists working abroad. In return for the acquisition of the collections, Sonder, thanks to his connections from Hamburg, procured, purchased, and shipped them the specialist literature they asked for. For example, Sonder often requested from Schlechtendal certain issues of 'Linnaea' or offprints of articles from it, often in large quantities, which he forwarded. That Sonder was also concerned about the reliable transport of shipments between overseas and Europe is evident from the fact that he mentioned arriving or departing ships in his letters (Tkach et al. 2022).

In link with Müller, Sonder frequently asked Schlechtendal to procure certain books through the latter's bookseller and antiquarian in Halle (letter dated 1 January 1855): „Dürfte ich Sie auch vielleicht ersuchen, den dortigen Antiquar Schmidt [gemeint ist der Buch-Antiquar und Verleger H. W. Schmidt in Halle (Saale), welcher seine Kataloge in Schlechtendals ‚Linnaea' druckte] zu veranlassen, mir einen Catalog seiner botan. Bücher zu senden, ich soll für Dr. Müller verschiedene

auf die Flora Australiens bezügliche Werke besorgen.“ With a futher letter on this issue dating from 8 March 1855: „Sollten Sie Ihren dortigen Antiquar nicht veranlaßen können, mir recht bald ein Verzeichniß seiner botanischen Bücher zu senden, ich möchte für Dr. Müller noch einiges kaufen, namentlich wäre es mir lieb, den Labillardière (Plant. Nov. Hollandiae [= Labillardière 1804–1806]) zu erstehen.“ [Nova Hollandia = Australia].

English translation:

„May I also ask you to get the local antiquarian Schmidt [meaning the book antiquarian and publisher H. W. Schmidt in Halle (Saale), who printed his catalogues in Schlechtendal's 'Linnaea'] to send me a catalogue of his botanical books. I am to procure for Dr. Müller various works relating to the flora of Australia." and "Should you not be able to induce your antiquarian there to send me a list of his botanical books as soon as possible, I would like to buy some more for Dr. Müller, in particular I would like to purchase the Labillardière (Plant. Nov. Hollandiae [= Labillardière 1804–1806])." [Nova Hollandia = Australia].

In a letter of 4 March 1854, Sonder reports on Müller's latest dispatches from Australia and quotes from a letter by Müller about his botanical field research in the Buffalo Range (Tkach et al. 2022; see also Home et al. 2023):

„Von den beifolgenden Bearbeitungen der Müller'schen Pflanzen darf ich mir wohl wieder 25 Abdrucke erbitten. Vor einigen Tagen ist wieder eine Kiste mit Pflanzen eingetroffen, die viel Interessantes, die Ausbeute von Müller's Reise in die Buffaloe-range (Büffelgebirge) enthält. Müller schreibt: das Büffel Gebirge habe ich u seinen höchsten Gipfel zum ersten Male erstiegen, niemand wenigstens war bisher auf seinen höchsten Piks [Peaks], u der noch höhere Mount Buller ist nur von 2 oder 3 Parthien früher erklettert. Ich war dort ganz allein 3 Tage u hatte das außerordentliche Vergnügen auf seinem eisigen Felskamme u einem merkwürdigen grasigen Gesenke etwa 5000' [ca. 1,520 m] hoch die ersten Alpenpflanzen Neuhollands [Australiens] zu finden, eine liebliche großblumige Gentiana, Celmisia asteliaefolia [*asteliifolia*], Ranunculus Gunnianus, Podocarpus montanus, Phebalium podocarpaeoides [*podocarpoides*], Hovea u Brachycome Arten, Alpengräser u.s.w. Die herrlichste Entdeckung im Buffaloe-range war eine prachtvolle Grevillea u eine bis 20 Fuß hohe großblättrige Corraea [*Correa*] [Fig. 6]. Neben mancher Eigenthümlichkeit in Gippsland [Region im Südosten Australiens], welches ich wohl zuerst botanisch zu untersuchen das Glück hatte, erfreute mich eine köstliche parasitische Scrophularina [*Scrophulariaceae*], Basilophyta Friederici augusti [*Basileophyta friderici-augustii*], u war ich nicht wenig erstaunt, hier so manche Seltenheit zu finden, die man früher als der gegenüber liegenden Vandiemens-Insel [Tasmanien] ausschließlich angehörend hielt, z.b. Tasmania aromat [*Tasmannia aromatica*], Fagus Cunninghami [*Nothofagus cunninghamii*], Gymnoschoenus adustus, Diplarrhena [*Diplarrena*] Moraea etc: – In der letzten Zeit wäre es mir bald schlimm ergangen; ich hatte mich in den überflutheten Gestrüppen von Melaleuca squarrosa & Leptosperm. [*Leptospermum*] juniperinum u den Lepidosperma Sümpfen verirrt und mußte 5 Tage im schrecklichsten Regensturm im Freien zubringen, die ganze Zeit von einer einzigen Frühstücksration lebend, die ich glücklicherweise mitgenommen hatte. Im Sommer findet der hungrige Naturforscher hier wohl kleine eßbare Beeren, diesmal fand ich nicht das geringste Eßbare, einige verwilderte Pflanzen von Stellaria media [bereits damals in Australien eingebürgert!] ausgenommen. Das botanische Resultat dieser schrecklichen Tage war eine einzige Binse (Chorizandra).

Unter den 1140 Pflanzenarten die M. [= Müller] bis jetzt in austral. felix [Australia felix = glückliches Australien; frühere Bezeichnung einer Region im Staat Victoria, Südosten Australiens] gesammelt u die er als die Hälfte der in der Colonie Victoria vorkommenden betrachtet, finden sich 50 Filices (etwa das 3 fache von Südaustralien); dann auch viele Moose. Unter den Phanerogamen sind die Leguminosen stark vertreten, namentlich Pultenaeen u Acacien. Compositeen bis jetzt wenig gefunden; keine Zunahme der Stylideen u Epacrideen aber das Doppelte der Proteaceen von der Adelaide-Colonie. Polygoneen u Restiaceen [Restionaceae] gleichfalls reichlicher, Myoporineen, Cruciferen, Zygophylleen, Santalaceen u. Salsolaceen abnehmend. Myrtaceen in großen Mengen, besonders im Osten, Leptospermum u die Backea [*Baeckea*] Gruppe reichlichvertretend [richtig: reichlich vertreten], sowie eine beträchtliche Anzahl schwer zu bestimmender Eucalyptus. Ich habe Dr. Müller in diesen Tagen geschrieben, er möge wieder Sämereien schicken, namentlich von der überaus prächtigen Grevillea (Victoriae), u von Corraea [*Correa*] Latrobeana die gewiß die Schönste

der Gattung ist [Fig. 6]. Eine hübsche Collection von Algen ist wieder mitgekommen, größtentheils andere als die neulich publicirten.“



Fig. 6: a. Inflorescence of *Grevillea victoriae* F.Muell. (*Proteaceae*), which Müller mentioned in a report to Sonder, from which Sonder quotes in a letter of 4 March 1854 to Schlechtendal. The new species *G. victoriae* was described by Müller in the following year 1855 (Trans. Philos. Soc. Victoria 1: 107). The plant name had already been noted by Müller on the herbarium voucher, which Sonder received in the likewise mentioned “box of plants”. For the location of the find, see text and Sonder’s letter printed in full in Tkach & al. (2022: pp. 22–23). For digitized copies of associated herbarium specimens, see JSTOR Global Plants (2023). — Photograph taken by Melburnian in Mount Buffalo National Park (Victoria), https://commons.wikimedia.org/w/index.php?curid=12109690, CC BY 3.0. **b.** Flower of *Correa latrobeana* F.Muell. ex Hannaford (*Rutaceae*), which Sonder mentions in his letter of 4 March 1854 to Schlechtendal and calls “the most beautiful species” of the genus because he had knowledge of what this species looked like from the herbarium specimens sent to him by Müller. — Photograph taken by J. Miles in Nadgee State Forest (New South Wales), https://commons.wikimedia.org/w/index.php?curid=92181256, CC BY 3.0

English translation:

“I would like to again request 25 reprints of the enclosed treatments of Müller’s plants. Some days ago, a box of plants arrived again, containing many interesting things, the spoils of Müller’s journey in the Buffalo Range (Buffalo Mountains). Müller writes: ‘I have climbed the Buffalo Mountains and its highest peak for the first time, at least hitherto no-one was on its highest peaks, and the even higher Mount Buller has only been climbed by 2 or 3 parties previously. I was there all alone for 3 days and had the extraordinary pleasure of finding the first alpine plants of New Holland [Australia] on its icy ridge and a strange grassy depression about 5000’ [about 1,520 m], a lovely large-flowered Gentiana, Celmisia asteliaefolia [*asteliifolia*], Ranunculus Gunnianus, Podocarpus montanus, Phebalium podocarpaeoides [*podocarpoides*], Hovea and Brachycome species, alpine grasses and so on. The most wonderful discovery in the Buffalo Range was a magnificent Grevillea and a large-leaved Corraea [*Correa*] up to 20 feet tall [Fig. 6]. In addition to some peculiarities in Gippsland [region in south-eastern Australia], which I was probably fortunate enough to examine botanically first, I was delighted by a delicate parasitic Scrophularina [Scrophulariaceae], Basilophyta Friederici augusti [*Basileophyta friderici-augustii*], and was not a little surprised to find some rarities here that were previously thought to belong exclusively to the opposite Vandiemens Island [Tasmania], e.g., Tasmania aromat [*Tasmannia aromatica*], Fagus Cunninghami [*Nothofagus cunninghamii*], Gymnoschoenus adustus, Diplarrhena [*Diplarrena*] Moraea etc: – Lately I had fared very badly; I got lost in the flooded scrub of Melaleuca squarrosa & Leptosperm. [*Leptospermum*] juniperinum and in the Lepidosperma swamps and had to spend 5 days in the most terrible rainstorm in the open, the whole time living on a single breakfast ration which I had fortunately taken with me. In summer, the hungry naturalist will probably find small edible berries here, this time I did not find the slightest edible thing, some feral plants of Stellaria media [already naturalised in Australia at that time!]

excepted. The botanical result of these terrible days was a single rush (Chorizandra). Among the 1,140 plant species that M. [= Müller] has so far collected in austral. felix [Australia felix = fortunate Australia; former name of a region in the state of Victoria, south-eastern Australia] and which he considers to be half of those occurring in the colony of Victoria, there are 50 Filices (about 3 times that of South Australia); then also many mosses. Among the phanerogams, the legumes are strongly represented, especially pultenaeas and acacias. Composites so far few found; no increase in stylids and epacrids but double the number of proteaceas from the Adelaide colony. Polygoneae and Restiaceae [Restionaceae] also more abundant, Myoporineae, Cruciferae, Zygophylleae, Santalaceae and Salsolaceae decreasing. Myrtaceae in large quantities, especially in the east, Leptospermum and the Backea [*Baeckea*] group abundant, as well as a considerable number of difficult to determine Eucalyptus.

I have written to Dr. Müller recently, asking him to send seeds again, especially of the extremely splendid Grevillea (Victoriae), and of Corraea [*Correa*] Latrobeana, which is certainly the most beautiful of the genus [Fig. 6]. A nice collection of algae has come in again, mostly different from those recently published."

Edition of Schlechtendal's correspondence

The approximately 5,600 surviving letters to Schlechtendal from his contemporaries are mostly written in the old and long-unused German Kurrent script. Moreover, some of the authors had quite illegible handwriting, which makes the recording of the letters very difficult and time-consuming. The work is mainly done by elderly volunteers, who are specialised in reading old manuscripts.

So far, about 54% of the letters have been transliterated and some of them have already been transferred into a word processing package. Letters from several authors have been treated as topics of scientific term papers by biology students. It is planned to publish the letters of Schlechtendal's correspondents with botanical-scientific explanations and other comments important for understanding them, i.e., in edited and annotated form. The letters of Kurt Sprengel, Schlechtendal's predecessor as Director of the Botanical Garden in Halle, of Otto W. Sonder in Hamburg, and approximately half of the letters of Ernst H. F. Meyer (Göttingen, later Königsberg) have already been edited and published (Machoy et al. 2021, Tkach et al. 2022, Fischer et al. 2023), as well as the few letters of the Basel jurist and botanist Hermann Christ (Tkach & Röser 2024).

Acknowledgments

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