

Zeitschrift:	Boissiera : mémoires de botanique systématique
Herausgeber:	Conservatoire et Jardin Botaniques de la Ville de Genève
Band:	73 (2022)
Artikel:	The botanical expedition of Hermann Wendland in Central America : a nomenclatural study and travel report
Autor:	Dowe, John L. / Appelhans, Marc S. / Bräuchler, Christian
Kapitel:	Hermann Wendland's reports on his botanical excursion to Central America as published in the Hamburger Garten- und Blumenzeitung, 1857
DOI:	https://doi.org/10.5169/seals-1036070

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Part II

Hermann Wendland's reports on his botanical excursion to Central America as published in the *Hamburger Garten- und Blumenzeitung*, 1857

Introduction

This section is intended to complement the accompanying taxonomic treatments and cross-reference between them allows for an understanding of the circumstances concerning plant collections and the locations involved. The published correspondence translated here is more or less the entirety of the only known first-person records of Wendland's travels in Central America. Although thorough searches have been undertaken in the archives and libraries at Herrenhausen, Göttingen, and Hanover, no other significant records or any official reports have been located. Some documents such as his passport are extant (KGBH, 2021a), but these add little in the way of explanation of his travel itinerary or botanical activities. A number of letters were published in *Hannoversche Zeitung* (WENDLAND, 1857a–d), but these are the same as those subsequently published in five articles in the *Hamburger Garten- und Blumenzeitung* (WENDLAND, 1857e–i). It is from the latter journal that the translation presented here is made.

The published correspondence covers Wendland's travel activities from December 1856 through to June 1857. In the broadest sense, the letters represent the recollections of an adventurous traveling son to his father, but in a stricter sense offer insights into colonial exploration, Germanic attitudes, and the trials and tribulations of an enthusiastic and well organized botanical collector. Wendland's observations in his correspondence were varied and included subjects as diverse as politics, religion, food, health, social conditions and the comparison of life in Central America with that in Germany (at that time known as the German Confederation).

Apart from the published excursion reports that only date from December 1856 through to early June 1857, Wendland's complete itinerary, up to mid-August 1857, can be established from the field labels that accompany his herbarium specimens, mainly now kept at GOET. These labels provide the collection dates and locations for hundreds of specimens. Compiling the information from the labels allows for an almost day by day record of travels. We provide a list¹ of those locations cited in his reports and on specimen labels.

Wendland's travel experiences and activities were reported in many of the contemporary botanical and horticultural publications. Some were short extracts or summaries of his published correspondence in the *Hamburger Garten- und Blumenzeitung* (ANON., 1856, 1857a–c, 1858b; KOCH, 1857), whilst others provided additional information. For example, it was reported that Wendland spent some time in the company of the Scottish plant collector George Ure Skinner upon his arrival in Guatemala (ANON., 1857b), a fact that was not otherwise mentioned by Wendland in his own correspondence.

Similarly, Wendland's connections with plant collector and explorer Karl Hoffmann in Costa Rica were only briefly mentioned by Wendland in his own correspondence but were elaborated on by a report published by HOFFMANN (1858: 302), in which he wrote that

¹ Place names mentioned by Wendland in his excursion reports and on specimen labels, arranged by country. Currently used names or alternative modern spelling are included in square brackets.

GUATEMALA: Acatenango, Agua Volcano, Altor Mts [Atitlán Mountains], Antigua Guatemala, Dueñas [San Miguel de Dueñas], Esquiella [Esquivel], Fuego Volcano, Guatemala [Guatemala City], Hacienda de Sapota [Zapote], Hacienda de Naranjo, Hacienda de Pantaleón, Izabal, Yalpatagua [Jalpatagua], Lago Dulce [Lago de Izabal], Las Nubes, La Puenta [El Puente], Oratorio, Quininagua [unknown place], Quiriguá, Río Dulce, Río Paz, San José, San Pablo, San Pedro, Santa Lucía, Tolimán Volcano, Zacapa. EL SALVADOR: Ahuachapán, Conchagua Volcano, La Unión, Port Conchagua [La Unión], Río Sucio, San Miguel, San Salvador, San Vicente, Santa Ana, Jocoro [Socorro], Tabanco [abandoned mine]. COSTA RICA: Alajuela, Azari [Aserrí], Atenas, Barva, Barva Volcano, Cariblanco, Cartago, Cuesta del Congo, Desengao [Paso de El Desengao], Esparza, La Garita, Heredia, Irazú Volcano, La Virgen, La Muelle [Muelle], Naranjo [Juan Viñas], Pedregal, Puntarenas, Rancho de La Paz, Río de los Angeles [Río Ángel], Río de La Paz, Río Reventazón, Río Sarapiquí, San José, San Miguel, San Ramón, Santa Ana, Turrialba, Turrialba Volcano, La Uruca. NICARAGUA: San Juan del Norte.

Mr. H. Wendland from Herrenhausen near Hanover climbed the Barba [Barva Volcano] ... collected some species of plants which I had overlooked or which were not flowering at the time ... [he] also found a very interesting *Balanophora* here, also parasitizing on oak roots.

Hoffmann's name is included in the annotations on some herbarium specimens, although whether this was to indicate that he was a co-collector or was only the despatcher of the specimens, is not known. For two examples, see *Siphocampylus regelii* Vatke [B 10 0244148], and *Mascagnia vacciniifolia* var. *hispidula* Nied. [NY2331690].

Wendland did not work alone in the field and was accompanied by many paid and unpaid assistants. Although some can technically be classified as co-collectors, their names have not been recorded on field labels, and Wendland is therefore the sole name on all his Central American collections. Those known to have traveled and possibly co-collected with Wendland included Skinner (ANON., 1857b), as well as Germans he met in Costa Rica: Gerhard Jäger, Friedrich Winter and Juan Braun, and Hoffmann as discussed above (HILJE, 2013).

There are also many villagers and townspersons with whom he traveled; the owners of huts, mule drivers, local guides and local business persons who he noted in his correspondence as being involved with plant and animal collecting. In Costa Rica, Wendland also met the zoologist Alexander von Frantzius but they did not spend time in the field as von Frantzius was in ill health at that time (HILJE, 2013).

In correspondence from Skinner to William Hooker (Guatemala, 3 February 1857), Skinner wrote that Wendland "was charming & I took so much delight in chaperoning him through all this my own especial kind of country for every inch I almost now know". Skinner also wrote that Wendland despatched 400 specimens from Guatemala before his departure as well as packets of seeds (SKINNER, 1857). There are about 200 extant specimens collected by Wendland from Guatemala.

The English translation of the original German texts has been prepared so that it is as close as possible in spirit as well as it is descriptively and linguistically. The spelling of place names and locations has been corrected to current usage. In the translated text, additional comments and annotations by the authors are in square brackets. Although Wendland reported that he had made sketches during the expedition, none have been located. However, for illustrations of places mentioned by Wendland in Costa Rica from around the same time that he was there, see MEAGHER (1860a–c).

Article 1

Travel notes by court gardener H. Wendland

The court gardener Hermann Wendland, as reported in these pages, was sent by His Majesty the King of Hanover² to Central America to collect plants and seeds for the Royal Berggarten in Herrenhausen. He started his journey on November 17th of last year from Southampton. He arrived at St. Thomas after an uneventful journey on December 2nd, at Jamaica on the 6th, and at Belize on the 12th. After several days in the latter place, he continued his tour on December 14th on a small schooner to Guatemala, where he arrived safely on the 27th [correctly 16th] of the same month.³

² King Georg V of Hannover (1819–1878).

³ The 27th December is when Wendland arrived at Guatemala City, after having arrived in the country on the 16th.

The acquaintances and professional colleagues of Mr. Wendland might be interested in learning more detail about his preliminary observations on the route from Belize to Guatemala, which he reported in a letter to his family in Hanover, from which the following extract is taken: "On the 14th December [1856]" writes the traveler, "at 6 o'clock we went on board, five men strong. The cabin was so narrow that we could hardly lie in a horizontal position at night. In addition to this, there was the great uncleanliness of the ship, which swarmed with cockroaches of no small size. These inconveniences were totally outweighed by the wonderful view of the coast that we were sailing along. The next evening we dropped anchor in Río Dulce [FIG. 36]. Although we had good weather up to this point and felt the tropical sun and warmth sufficiently, we would now make acquaintance with tropical rainy weather.

On the 16th [December] the sky opened all its hatches and the rain fell as thick as an arm. While sailing up Río Dulce I noticed about twelve different species of palms through binoculars, but the distance prevented me from identifying them. Here I got my first idea of a jungle. Describing such a thing becomes almost impossible for me: you see a lot, you see nothing. What life reigns in such vegetation, everything strives upwards. If a giant tree ventures above the other giants it is held, like a mast, by ropes and creepers so that it cannot fall over. Almost all trees provide support for other plants, such as aroids and creeping ferns that resemble snakes, mixed with orchids and tillandsias.⁴ On the river itself there is predominantly *Rhizophora mangle* [a mangrove species]. The cecropias, dillenias, etc. are wonderful. Late in the evening of the 16th we came to the great lake near Izabal, but we were unable to leave our schooner that night. We stayed in Izabal for the next three days to make arrangements for the land trip. Here I saw for the first time the splendid Carolinian trees [*Pachira aquatica* Aubl.] adorned with large white flowers with long bundles of red stamens. On the 20th [December 1856] we mounted our mules; the path that led uphill and downhill was not very even. At first this ride seemed dangerous to me, but gradually I got used to it, and later realized that the first day had been the easiest. There are no roads here yet; a path of unequal width leads through the jungle, the path is of course made dry due to the exposure, and the sun is all the more intense. Our first night's camp was set up with a German carpenter who had almost forgotten his mother tongue. At dinner we were surrounded by all sorts of spectators who seemed to envy us not a little. These consisted of dogs, pigs, chickens, monkeys and a number of naked children, all of whom are only seldom given food, since they are dependent on providing for themselves. We slept in a place consisting of four poles and it was curiously called the corridor; three sides are open, only the fourth is covered with palm leaves as is the roof. I had hardly climbed with some difficulty into my hammock when a family of pigs appeared below me and had come to look for the remains of our meal. This also included my boots, which they snatched off the table on which they lay. All I could do to save them from the voracity of the animals was to climb out of my hammock, chase the pigs away, and get my boots to safety.

Towards morning I was awakened from sleep by a terrible storm, and calm was out of the question because of the force of the hurricane; it rumbled and crashed so hard as I have never experienced before; such a storm can only be heard here. The trees were thrown down en

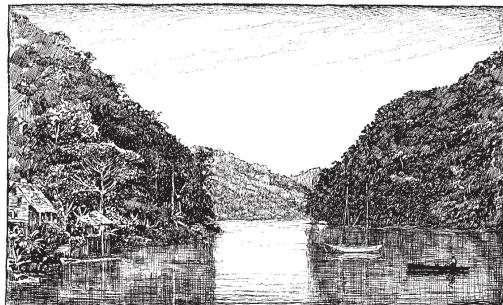


Fig. 36. – "The entrance to Río Dulce". Guatemala, traveled by Wendland 16–20 December, 1856. [BRIGHAM, 1887: unnum.] [Reproduced with permission of the Universidad de Costa Rica]

⁴ Another letter published in *Botanische Zeitung* 15: 278–279 (1857) recalls the same experience at this location but with slight changes and additional wording.

masse. After the storm was over, we rode on for two days through an area of cacti, which proved to be very tiring to the end. *Cereus hexagonus*,⁵ 30 feet and one to two feet thick, mixed with equally strong pereskias, several orchids but mainly tillandsias. *Tillandsia erubescens* is the most common one.⁶ I think I can claim that a two-horse carriage load of *Tillandsia* can be taken from a single *Pereskia*.

On the 27th [December] we arrived in Guatemala [City] after we had met with a myriad of green parrots, which were flying in pairs or in flocks. This city, with its friendly appearance, could not be located more beautifully; it is surrounded on three sides by volcanoes, one of which is constantly steaming. In Guatemala I will mainly search the west coast, for the rest is already over explored.⁷ I will stay here until the end of February to send the plants that have meanwhile been collected to Belize and then go through San Salvador [El Salvador] to Costa Rica. On January 4th I will start my first big excursion. (To be continued.) [H. G.]

Article 2

Travel notes by court gardener H. Wendland (Continuation.)

We are able to provide below an excerpt from the reports received from the court gardener Mr. Wendland from Herrenhausen about his botanical excursions in Central America and which we will let him tell himself: Guatemala, January 22nd, 1857. I am, thank God, very well and only suffer from some impatience about the delay in the arrival of the long-awaited letters from Hanover. I conclude that they must be nearby from the fact that Mr. Wyke,⁸ the English consul here, sent me a brochure from Sir W. [William Jackson] Hooker in Kew, which the latter sent him for me in the last post. But the former has his own courier up from Izabal, so I will have to wait until tomorrow. While my clock shows half past six in the evening, it is always between two and three in the morning on the 23rd in Hanover; when I get up I know it is lunchtime there. It gives me a great amount of pleasure to occasionally compare the time here with the time there. Tonight I am going to the local opera with an acquaintance. I am very curious about it.

January 23rd. That was a merciful performance yesterday; it is impossible to ever listen to something like this. I am not even able to describe it, it was too horrific. The expected letters are here, the content of which has reassured me completely. I leave Guatemala on the 26th, the wagon and steamboat are already booked. I have made many trips here this month and seen and collected a lot, so I can be satisfied with myself. The reason I am leaving here so soon is that this area does not have as many beautiful and new plants as I expect there are in Costa Rica. There are, of course, many beautiful plants here, but they are very rare. I have the prospect of going to Puntarenas on a steamboat that I do not want to leave unused.

In my earlier letter I wrote about a coastal expedition, which I mentioned I wanted to undertake at the beginning of the month, but it fell apart again. One Sunday I went on an excursion to a ravine not far from Guatemala [City], accompanied by a German blacksmith who does a good business here, is a passionate hunter and is also a very good man.⁹ I want to describe what that means to you right away.

⁵ *Cereus hexagonus* (L.) Mill. is native to northern South America (TAYLOR & ZAPPI, 2019); Wendland's record may be an adventitious population or possibly another species that is unable to be identified as he did not make a collection of the plant.

⁶ *Tillandsia erubescens* H. Wendl. [= *Tillandsia ionantha* Planch.]. There are no known specimens of this species, although there is at least one surviving undetermined specimen that may correspond to it (GOET037178).

⁷ He probably refers to the botanical explorations of the "Real Expedición Botánica a Nueva España", sent out by Carlos III in 1787, and commanded by Martín Sessé and José Mariano Mociño. In addition, the Austrian Emmanuel von Friedrichsthal and the Polish Józef von Warszewicz had made extensive plant collections in Guatemala in 1839–1840 and 1845–1846 respectively (HILJE, 2013).

⁸ At that time, Charles Lennox Wyke (1815–1897) was the British consul for the five Central American countries (Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica) and later on acted as a plenipotentiary minister to Mexico.

⁹ Later on, Wendland mentions that his name was Peter Kreitz.

Guatemala [City; FIG. 37] lies on a plateau 5,000 feet above the sea, enclosed on all sides by high mountains within a distance of 2–5 hours. This plateau appears fairly flat when viewed from the mountains and also from the city; but if one looks at them more closely, one finds in the apparently flat region a multitude of valleys that are initially narrow and deep, and then wider, and which are overgrown with trees, namely oaks, on the sides and above the edges. In the distance one sees only these trees and does not suspect the abrupt depths or ravines next to them.

My first excursion was directed to such a barranca. I returned home tired but laden with plants. A few days later I made a second four-day excursion to Las Nubes (the clouds) [8–12 January 1857], a mountain range 8,000 feet above the sea, six hours south-east from here. It gets its name from the fact that it is almost constantly shrouded in clouds, which it seldom sheds. There is the ultimate alpine climate there; the cold, from which we suffered, especially at night and in the morning, fell to $+5.5^{\circ}$ R [6.9° C].¹⁰ I have collected a lot and found pretty things, but little of particular interest because the Indians take everything to their masters. Bromeliads predominate; the trees are literally overburdened with them and collapse under their weight, since the bromeliads are mostly still filled with water. I am sending seeds of them as well as ferns home in abundance. From this tour I made two excursions, which were also very successful.¹¹

On January 17th, accompanied by my friendly travel companion and host, I made a six day trip to Old Guatemala, Antigua Guatemala as it is called, which was destroyed by an earthquake in 1776 [FIG. 38].¹² The city lies almost between two volcanoes, Agua Volcano and Fuego Volcano, two of the most beautiful mountains in the world [FIG. 39]. The excursion was made around the latter. The second night [18 January] was spent in Dueñas [San Miguel de Dueñas], a village directly between the two volcanoes, in the house of an Englishman, Mr. Wyld,¹³ who owns large cactus plantations there to raise cochineal.¹⁴ He and his son decided to join our tour, and so we started on the third morning. Our caravan consisted of eight people, including porters and servants, and six horses and donkeys. We returned on the 6th day.

On this tour I found several beautiful plants, among them some which had remained unnoticed by the others, but were a wonderful find for me, who recognized their worth. The Indian who carried them for me had lost several pretty plants, which is not uncommon here. It was a splendid tour; the view, especially from the Hacienda de Pantaleón,¹⁵ which lies between Fuego Volcano and the sea, was one that may not be found again. Right in front of us was the always steaming Fuego Volcano ([Footnote] According to English newspaper reports, this volcano is supposed to have had a terrible eruption on March 3rd of this year.).

To the left and north at about 50 leagues from here is the Tolimán Volcano in the beautiful Altos Mountains [a name no longer used], a little to the right the Agua Volcano and even further the three-headed Pacaya Volcano. The first three volcanoes are model works of creation, pyramids of indescribable beauty and all three between 13 and 14,000 feet high. Here I first saw streams of ash that Fuego Volcano spewed out last year, which caused considerable destruction.

On the sixth day we rode through Old Guatemala, where my travel companion pointed out many interesting things to me. The moment

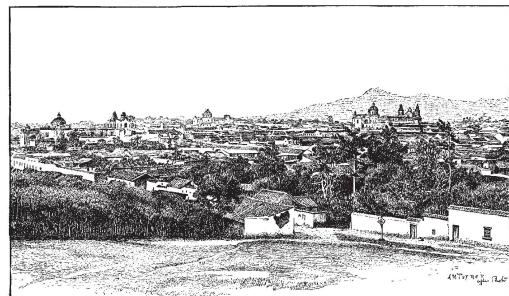


Fig. 37. – “Guatemala City”, visited by Wendland in December 1856 to January 1857.
[BRIGHAM, 1887: unnum.] [Reproduced with permission of the Universidad de Costa Rica]

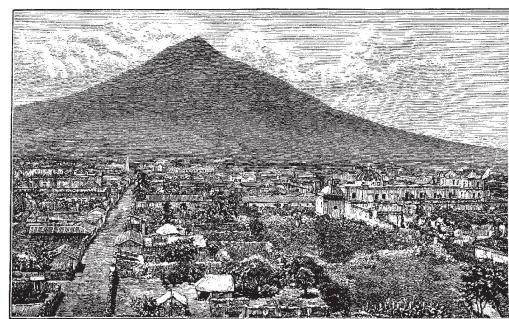


Fig. 38. – “Antigua – Volcan de Agua in background”.
Guatemala, visited by Wendland, January 1857.
[WESTERVELT, 1878: unnum.] [Reproduced with permission of the Universidad de Costa Rica]

¹⁰ Wendland used the Réaumur scale for temperature. It was then used in some parts of Europe but was largely abandoned to Celsius scale about the mid-nineteenth century.

¹¹ On January 11th, Wendland collected in Las Nubes, among other plants, the type of *Cicendia stricta* Griseb. (Gentianaceae) and *Maxillaria atrata* Rchb. f. (Orchidaceae).

¹² A telluric series known as the “Santa Marta” Earthquakes struck and destroyed the city of Santiago de Los Caballeros (now Antigua) on 29 July, 1773.

¹³ While in Guatemala, the English naturalist Frederick DuCane Goodman noted: “[August 1861] then proceeded to Dueñas, where we remained for some weeks in most delightful quarters at the house of Mr. William Wyld, a friend of [Osbert] Salvin’s” (GODMAN, 1915: 4). We assume this is the same Wyld with whom Wendland stayed. His brother, Thomas Wyld (1813–1867), was also in Guatemala at the time.

¹⁴ This sessile homopteran insect, *Dactylopius coccus* (Dactylopiidae), was raised on the prickly pear cactus (*Opuntia* spp.) by the Aztecs and the Mayas, as a source of a red pigment called carmine.

¹⁵ Hacienda de Pantaleón, where the type specimen of *Spiranthes prasophyllum* Rchb. f. (Orchidaceae) was collected.

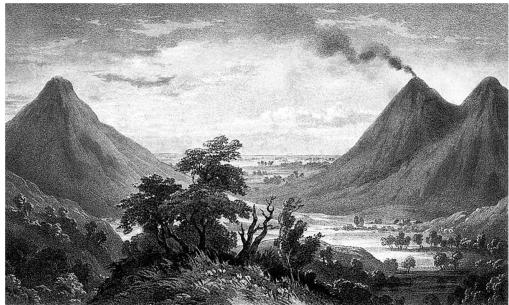


Fig. 39. – “Plains of Alotenango and Esquintla, between the volcanoes de Agua and de Fuego”.
[BAILY, 1850; frontispiece] [Reproduced with permission of the Universidad de Costa Rica]

of destruction must have been terrible; but now people have once again settled down beneath the horrific rubble without dread. The third night of this trip I had to sleep on a table where the horse blanket served as a mattress and the vasculum as a pillow;¹⁶ in the fourth I slept on a pile of corn cobs, into which I had partly worked my way. The next morning I found a nice imprint of my body in the pile of corncobs and likewise each corncob left a natural imprint on my body. One night we had a weak earth tremor, but I did not notice anything. On this tour I had to swallow a lot of dust, especially ashes, which was often unbearable. I have not seen rain for five whole weeks, but I do not ask for it.

January 25th. My things are packed; I am leaving here tomorrow and should arrive down below early enough on the 27th to continue on the steamboat.

January 28th. All in vain! My trip was cancelled, I experienced one of the many Yankee pranks.¹⁷ The steamer had arrived on the morning of the 26th, but left again on the same day without return freight or passengers.¹⁸ I am back in Guatemala [City] and lost at least four weeks to the prank. At first I was in doubt as to what to do under these circumstances, as I cannot possibly wait here another month, and the overland route seems too arduous from here. I was soon overcome by my hesitation and came to a firm resolution.

I was in Esquiella [Esquintla] on the 26th [January] and drove on the next morning when several riders met me, who guessed my intention and informed me that my onward journey was in vain, since the steamship would have returned to Panama without further ado and without taking the post office boxes. During my retreat we met many travelers who wanted to go to the steamboat.¹⁹ Everyone had to turn back and postpone the continuation of their journey for four weeks. The government pays \$3,000 a year, therefore the steamer if it sees fit, does not only leave the passengers behind but also the mail, as happened this time.

On this unsuccessful tour I made the acquaintance of a general José María de Garria with his son and daughter,²⁰ who were going to travel to Nicaragua. They had the same fate as me and told me that they wanted to reach La Unión [in El Salvador] and invited me to accompany them until then, since I would have to travel there too if I did not want to wait four weeks for the return of the steamship. Father and son were veritable giants, armed with sabres five feet long. Since they were also returning to Guatemala, I went to see them as soon as we arrived to discuss our joint trip overland. We now want to leave on the 31st, our company will be very numerous, as many people want to join us.

Despite the initially feared difficulty of traveling in the country, I am now starting to look forward to this tour, as it will give me the opportunity to see some things. The traveling costume looks very adventurous here in the country; one is armed up to the ears, so that in case of need I would be overwhelmed with the decision of which weapon I should use first. You usually have a rifle lying across in front of you on your saddle, a sabre five feet long, with which you cannot do anything, hangs on the side, a knife and dagger stuck in your belt. The clothing is usually quite dirty, the trousers are tucked into the boots, on which there are spurs that are even bigger than you see on the theatre stage at home. When I saw the general and his family (the daughter never let her cigar go out) for the first time, I could hardly help laughing. If you saw such a bunch at home, you would mistake the people for vagabonds and tightrope walkers.

¹⁶ A vasculum is a container that was carried in the field by botanists in which botanical specimens were inserted and stored until they could be pressed and otherwise processed at the end of the day. Late-period vascula were about 1 m long, oval in cross-section, and with a side-door for inserting or removing the plant material. The design of these varied over the years and from country to country. There is no known description of those used by Wendland.

¹⁷ ‘Yankee prank’, a term used to describe an unreliable service.

¹⁸ In correspondence from George Ure Skinner to Willian Hooker (Guatemala, 3 February 1857), Skinner described the delays: “he [Wendland] started on the 26 to go by steamer but the vessel went off before they reached the port leaving 11 passengers & all the Gvt. correspondence so he had to return” (SKINNER, 1857).

¹⁹ This very probably refers to the *Columbus*, a steamship belonging to the Pacific Steamship Mail Company, which provided services to all Central American ports, from Panama to Puerto San José (Guatemala). The captain was John Melmoth Dow, an amateur botanist and zoologist (HILJE, 2013).

²⁰ We were unable to identify this general, whose correct family name may be Garcia (Garria being a linguistic misinterpretation) or possibly Garriga.

La Unión, February 23rd. I have come here safe and sound and will hopefully reach the long-awaited Costa Rica in eight days, if an American steamer does not fool me again. My departure from Guatemala was delayed until February 6th as my travel party was still not ready to leave. Finally, since I was tired of waiting, I had to leave alone, taking a safe, reliable guide. I thought the others would soon catch up with me; but I was wrong because I never saw them again.

On the 8th [February] I was in Santa Ana, on the 10th in San Salvador, where I rested for a day, on the 13th in San Vicente, on the 15th in San Miguel and on the 22nd [February] I arrived here in La Unión. From San Miguel I went on a three day excursion to the silver mines near Tabanco.²¹ My guide was a good person, but rather fearful; he was only calm and satisfied when I had my revolver in my hand, but it was never used. Traveling in this country is not very dangerous, although robberies occur from time to time. Strangers are seldom stopped because one fears their better weapons, for which one has great respect. So I got here without any incidents. On the way I suffered from the strong rays of the sun, which burned my hands and face so that my skin peeled off. The country I passed was mostly very beautiful, but for the most part very scorched. I will send the seeds collected during this trip with the next post. I have not seen many palms, only a *Bactris*²² and there is no trace of *Chamaedorea* or *Geonoma*.

February 24th. Here in La Unión there is a pleasant warmth, we have 97° F or 29° R [36° C] at 3:30 o'clock in the afternoon. From 10 o'clock in the morning to 4 o'clock in the afternoon, you cannot do anything here. But the people here also pretty much enjoy doing nothing. The best thing here in the country is the hammock, which takes up the first, but also the largest, space in the room, hanging from one wall to the other. It is not missing in any room and serves as a sofa; every stranger or visitor is offered a seat on it.

As mentioned, the country is beautiful, even wonderfully beautiful and I like it very much, apart from the people who populate it. Now because of the war in Nicaragua every stranger is taken for a North American and is honoured with the designation of Yankee; this word is often called out at strangers from time to time.²³

1st of March. Yesterday I made an excursion to Conchagua Volcano, which I found very satisfying. I found a palm near there, a *Copernicia* or a *Brahea*.²⁴ On the 3rd [March], a steamer is likely to return from Guatemala; then I can be in Costa Rica in three to four days. I made a very unpleasant acquaintance with the garrapatas [ticks], in any case the most terrible insects that exist.²⁵ The only way to keep them away from you is a linen or drill suit.²⁶ If you have been in the woods during the day, you can count on your return with certainty that you will be completely covered by them. My old friend Peter Kreitz, the passionate hunter in Guatemala, tells me: I am not afraid of anything in the world, but I would rather fight a tiger than the garrapatas. In a village where I was staying the night, the people pitied me for having to bring flowers with me, because they thought that no flowers were growing where I came from. ([Footnote] I too had much to endure with this most horrible plague of all plagues on the journey from Caracas to Orituca [Altamira de Orituco] in the area of Las Gartigas [Artigas]; this little insect is worse than any mosquito species. E. O. [Eduard Otto]).

March 6th. The expected steamer has finally arrived and is leaving today at noon. I have eventually contracted a slight fever, here at this

²¹ El Tabanco was one of the now abandoned gold and silver mines near San Miguel.

²² There is at least one collection of a *Bactris* species from this time: GOET025048.

²³ In the midst of an unending historical struggle between the Liberal and Conservative parties, the liberal leader Francisco Castellón contacted the American journalist Bryan Cole who secured the military support of William Walker (1824–1860), a journalist, lawyer and doctor then living in California. Walker arrived in Nicaragua in June 1855 with his own group of mercenaries or filibusters. Later on, he was able to obtain the support of the slavery-orientated states of southern United States, which wanted to annex the five Central American countries and establish slavery there. Although in 1856, Walker became president of Nicaragua, in 1857 he was defeated by a coalition of Central American armies led by Costa Rica.

²⁴ There are no known collections made by Wendland of either *Copernicia* or *Brahea*. This could not be a *Copernicia* as the genus does not occur in Central America; this was certainly a *Brahea*.

²⁵ These ticks are called chiggers, and they are not insects but mites.

²⁶ Types of tight-fitting clothing.

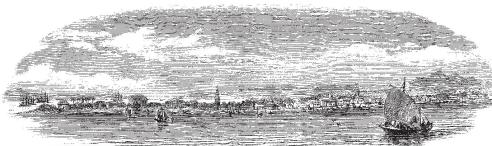


Fig. 40. – “Punta Arenas from the Gulf of Nicoya”, visited by Wendland 9–10 March 1857.
[MEAGHER, 1860b: unnumb.] [Reproduced with permission of the Universidad de Costa Rica]

²⁷ Dr. Ernst Carl Bernhard was a German physician who lived in Nicaragua at that time.

²⁸ Puntarenas was, and still is, the main port on the Pacific coast of Costa Rica. It was connected to San José, the capital, by means of the Camino Nacional (National Road). Both Esparza and Atenas were villages located along that route.

²⁹ Since coffee was harvested during the dry season (December–April), it had to be exported to Europe through Puntarenas. The Camino Nacional, 140 km long, was a very narrow oxcart way paved with stones so that Wendland witnessed a great deal of commercial activity.

³⁰ Born in Hanover, Wilhelm Nanne (1828–1895) was a business man who moved to Guatemala where he was involved with some of his sons in the construction of the railroad from San José to Escuintla (HILJE, 2013).

³¹ Karl Hoffmann (1823–1859), was a physician, botanist and zoologist born in Stettin, Prussia. He arrived in Costa Rica in early 1854, along with Alexander von Frantzius and Julián Carmiol,

with a letter of recommendation from Alexander von Humboldt to Juan Rafael Mora Porras, the president of Costa Rica (HILJE, 2006, 2007, 2013).

Even though Wendland barely mentions Hoffmann, in a paper about an excursion to Barva Volcano the latter states that Wendland visited this location in May, 1857 (HOFFMANN, 1858). *Geonoma hoffmanniana* H. Wendl.

ex Spruce was named by Wendland to recognize his compatriot. By the time Wendland visited him, he was ill, as an indirect consequence of the war against Walker, since he acted as the main surgeon of the Costa Rican army. The stress associated with taking care of hundreds of wounded soldiers, compounded with a very serious outbreak of cholera that killed some 10,000 persons, affected him so much, that he died two years later (HILJE, 2007).

³² Hoffmann and von Frantzius, along with other noteworthy scientists and intellectuals, were actively involved in the so-called Revolution of 1848 against absolute monarchy.

³³ Quickborn is a town near Hamburg, and the use of the term also refers to the dialect of that area.

unbearable place, but with the help of a Dr. Bernhard,²⁷ whom I got to know in St. Miguel, I hope to be over it soon. This fever attack will not hold me back from taking the steamer to Puntarenas so that I can get out of here as soon as possible.

Puntarenas, March 9th [FIG. 40]. I feel much better here and I hope to be restored shortly. Tomorrow afternoon I am going up to San José, where I will continue my correspondence. [H. Z.]

Article 3

Travel notes by court gardener H. Wendland in Central America (Continuation.)

Costa Rica, San José, April 4th, 1857.

My last reports came with the announcement that I had a slight fever; but that was soon resolved and my condition now leaves nothing to be worried about. On March 10th I was going to leave for San José, but my mules let me down, so that I could not leave until the following afternoon [11 March], after I hired others. I spent the first night [11 March] in Esparza, the second [12 March] in Atenas, and the third [13 March] already in San José [FIG. 41].²⁸

For the first two days the path led me through beautiful tropical vegetation; but it was excruciatingly dusty, as it has not rained there for a long time, like in Guatemala. My hardship was compounded by the fact that the way was constantly blocked by hundreds of oxcarts that were carrying coffee to the port.²⁹

On the third day, when I was already on the high plateau of San José, a strong east wind with dust caught me in the clear, dry air. These winds are harmful to those who come from the coast, often even very dangerous; they had no further effect on me other than burning my nose, cheeks, and hands, the latter was especially painful. Upon my arrival in San José, I delivered my letters of recommendation to Consul Nanne³⁰ and Dr. Hoffmann.³¹

In both of them I got to know very pleasant personalities, and I was welcomed by them in the kindest way. The latter is mainly interested in the natural sciences, has already collected a large number of dry plants and given me several good locations for plants. I spent quite pleasant hours in his house; his wife is from Berlin. They do not have children. In 1848 he had become very involved in the political movements in Germany and had to leave without any prospect of being allowed to return there.³² Since he draws a significant income from his present sphere of activity, he can already make a bigger household than many others.

The Germans who reside here seem to meet at his house often. There are many Germans here who, because they have been politically compromised or as so-called European wearis, have swapped their local residence for their old German home. Those dreaming about republicanism are here, where they live in the model republic, for the most part very quickly converted to the opposite, and are mostly also cured of their delusion. In Germany they would certainly be the quietest citizens of the world, if they were allowed to return there.

I was really pleased to find a good old ‘Quickborn’,³³ a young merchant, resident here and originating from Buxtehude named Winter, who, as well as his amiable wife, born in Hamburg, I had the pleasure

to make their acquaintance.³⁴ How in a foreign country the deep, comfortable tones of our Low German language strike the heart so powerfully and movingly at the same time!³⁵ With all those acquaintances one can have quite pleasant conversations idling away the hours and reminisce about the good old days in Germany.

Here in San José I rented a room for which I have to pay \$8.50 a month.³⁶ I also have a companion, interpreter, henchman and the like, etc. acquired in one person. This person is a German named Jäger;³⁷ he receives \$20 a month from me, free food and lives with me. I am generally told here that I can be satisfied with this cheap acquisition; he is at my hand in everything and is always ready to climb up a tree and bring down a plant, which no Indian can be induced to do for all the treasures of India.

I stayed in San José until March 21st, then took a trip via Cartago to Turrialba,³⁸ where I returned from on the 31st [March]. This tour was very successful as I brought back almost one and a half hundred dried plants. The living plants are here in the courtyard, where I prepare them for dispatch. Turrialba, east of Cartago, already belongs to the warm region and is surrounded by lush vegetation. I found five *Carludovica*,³⁹ palms, one cycad, maybe *Zamia skinneri* [*Zamia skinneri* Warsz. ex A. Dietr. = *Zamia neurophyllidia* D.W. Stev.] and a lot of beautiful foliage plants among other things. I collected seeds from most of them, otherwise also trunks, stalks, rhizomes and the like.

I spent several bad and exhausting days, namely on an excursion to a hacienda (farmhouse associated with livestock farming) that was four hours further and situated higher. Almost the entire trip I had to wade in dirt almost up to the knees and I often had difficulties not to get bogged down. On this tour I found the *Zamia*, as well as *Maranta warszewiczii* [= *Goeppertia warszewiczii* (L. Mathieu ex Planch.) Borchs. & S. Suárez] which, as I must admit, I had wished to having seen earlier and I am really jealous of Warszewicz for getting ahead of me.⁴⁰ The plant was seen there in all its glory, also *Maranta albovirens*.⁴¹ On the other hand I have found a very beautiful *Costus* with velvety dark leaves [*Costus malortieanus* H. Wendl.], some very beautiful Gesneriads, a splendid *Siphocampylus*,⁴² and other things. I have pretty little trunks of two of the most magnificent tree ferns here, and I hope I will succeed in keeping them alive so that I can enjoy them later on.

Drying plants is a lot of work, especially in the more humid regions. In Europe there is no concept of this humidity; anyway one has completely different ideas about what it is like here. Here everything is wrong, free will is missing; one is not in control of oneself, all calculations are wrong. Hastiness is unknown and you can recognize newcomers by their haste, which unfortunately makes things worse rather than better. Here is a country where everything is casual. A moment here lasts at least an hour, if not days.

I have not yet met large orchids, but smaller species. In the vicinity of Cartago I found a wonderful Bromeliad,⁴³ the most beautiful from this family, which I have found so far. The ferns that I have here are splendid, and therefore not without value; they are not very big, but will soon grow into beautiful specimens as soon as they have arrived safely over there with a bit of luck.

On the 8th of this month I had planned an excursion to Barva Volcano,⁴⁴ after which I will climb the Irazú. At the beginning of May I will start a major excursion to Río Sarapiquí, which will last at least

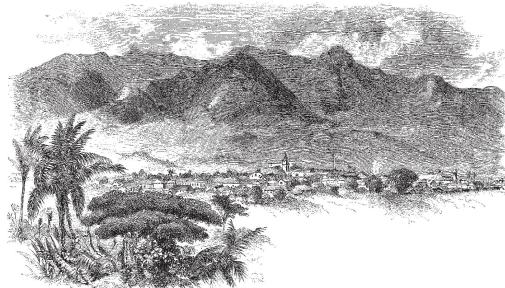


Fig. 41. – “San José”.

[MEAGHER, 1860b: unnumb.] [Reproduced with permission of the Universidad de Costa Rica]

³⁴ Friedrich Winter arrived in Costa Rica in 1856, along with his wife Johanna Dreisde. They owned a grain mill near the Torres River, in the outskirts of San José (HILJE & TORRES, 2018).

³⁵ Low German is a Germanic language spoken mainly in northern Germany and the north-eastern part of the Netherlands.

³⁶ The “peso”, the local currency, was then equivalent to the dollar (HILJE, 2013).

³⁷ Born in Flensburg in 1829, it remains unknown why, when and how Gerhard Jäger arrived in Costa Rica. After working for Wendland he was hired by von Frantzius to collect birds, in 1858 or 1859.

³⁸ Cartago city, located some 25 km east of San José, was the capital of Costa Rica during colonial times. Turrialba, which is the largest county of Cartago Province, is a typical Caribbean location, with extensive tropical rain forests. By the time Wendland visited this region, Turrialba was a tiny village located on the Colorado hillsides, near Naranjo (Juan Viñas), but later it moved to a wide valley downhill (HILJE, 2018).

³⁹ *Carludovica* Ruiz & Pav. is a genus of about four species, but in Wendland's time it had a broader sense including most of the currently accepted genera in *Cyclanthaceae*.

⁴⁰ Józef von Warszewicz (1812–1866) was a Polish botanist who traveled in Central and South America (1844–1850, 1851–1853).

⁴¹ *Maranta albovirens* Linden [= *Goeppertia ornata* (Linden ex Lem.) Borchs. & S. Suárez]. This species was well known in horticulture at that time, apparently introduced by Jean Linden and first presented in his catalogue in 1849.

⁴² Wendland loosely cited the genus name *Siphocampylus* Pohl. It is most likely he saw species in the genus *Centropogon* C. Presl as he was not likely to have encountered any true *Siphocampylus* along his routes.

⁴³ There are no known Wendland collections of any *Bromeliaceae* from around this time.

⁴⁴ The Barva Volcano (2906 m) is located 22 km north of San José. Wendland did not climb it at that time, but earlier in May.

three weeks. Every Saturday there is a weekly market; the most common article on sale was palm head cabbage [palm heart],⁴⁵ of which I counted 500–1,000 pieces. I do not know the species yet; but one seems to be a *Geonoma* and the other a *Euterpe* or *Oreodoxa*. Among the plants gathered at Turrialba there is also an *Iriartea*. Such a plant looks glorious in God's free nature; the roots emerge from eight feet up the trunk. The chamaedoreas also grow roots downwards from above.

San José, April 23. On the 5th [April] I rode on horseback to Alajuela with Mr. Winter to Dr. von Frantzius,⁴⁶ with the intention of making his acquaintance and at the same time asking him for information and advice about the excursion to be made to the Sarapiquí. In him I got to know a very interesting and informed man. In Alajuela we had the first rain, it did not last long but came down with such force that everything was immediately under water. At 1 o'clock in the morning we came back home under the wonderful moonlight.

On Wednesday April 8th, the day before Maundy Thursday, I went on a tour to Santa Ana,⁴⁷ accompanied by the merchant Winter and a pharmacist named Braun.⁴⁸ The latter was born in Bavaria, was in North America for a long time and then had been a gold digger in California. He believed he could find gold here too, and had therefore provided himself with a barge, a pick and a washing pan; in a few hours he had really washed out 16g of gold. I am very amused by this experiment, since it was the first time I had seen it. On this tour I found several very beautiful plants, including an *Adiantum*, a *Rubiaceae* [*Rogiera cordata* (Benth.) Planch.], splendidly in bloom, the same from which I sent seeds from Guatemala at the beginning of January, and an Aroid (*Syngonium*) with a velvet-like leaf that is adorned with a silvery white central nerve.⁴⁹

This excursion was deliberately set up for the two holidays so as not to be in San José and not to be bothered by the clamour of the people following the many processions that are conducted here during the festivities. These kinds of festivities are unbearable for a northern German mind both visually and audibly. A procession had already taken place on Palm Sunday [5 April], which represented the entry of the Saviour into Jerusalem. Imagine a curiously decorated doll riding a donkey, which was also followed by foals, on either side were two clergymen who had their hands full with holding the doll on the rather restless donkey, and after which walked the higher and lower clergy of the city. The whole thing was surrounded and accompanied by a multitude of screaming and terribly noisy folk.

On the evening before Easter, a gallows was set up on the market square [Main Square], accompanied by great shouting of the youth of San José, from which Judas was supposed to be hung in the morning. The spectacle started early at 3 am, and music and shouting did not resemble even in the slightest a Christian feast day. At sunrise Judas (again a strange looking doll dressed like a Yankee) was pulled up on the gallows amid raging, music, and fireworks. Judas himself was filled with fireworks, which ripped open his body with a powerful blow as if from a cannon. On the same day as the evening before, there were also great processions.

On the second day of Easter [11 April] I went on an excursion to Irazú,⁵⁰ a 12,000 feet high volcano, and rode first to Cartago, from where I went uphill the next morning. The tallest uninhabited hut I stayed in for three consecutive nights was at about 9,000 feet. Although

⁴⁵ Palm heart, locally known as "palmito", is the undeveloped leaves held in the apical meristem. It was usually extracted from wild species such as *Iriartea deltoidea* Ruiz & Pav. Presently extraction of palm heart from wild species is forbidden, and it is now obtained from young shoots of cultivated *Bactris gasipaes* Kunth.

⁴⁶ Alexander von Frantzius (1821–1877) was a physician and a naturalist who made important contributions mainly as a zoologist and geographer; he returned to Germany in 1868 (HILJE, 2013). He lived in Alajuela, where the climate is hot and dry, because he suffered from asthma since his youth.

⁴⁷ This place is in the western part of San José and is the type locality of *Xanthosoma wendlandii* (Schott.) Schott. They probably visited Río Oro (Golden River), a village where in the past there was a small gold mine (HILJE, 2013).

⁴⁸ Juan Braun (1824–1880) was the owner of a pharmacy in San José, participated in several excursions to volcanoes along with some compatriots, and also taught Latin, geography and history at the University of Santo Tomás.

⁴⁹ *Syngonium wendlandii* Schott is common in the vicinity of Santa Ana. Wendland's collection, GOET000260, is the type specimen.

⁵⁰ Irazú is the highest volcano on Costa Rica's Central Volcanic Range, reaching an elevation of 3,400 m.

I had the most beautiful weather on the previous days, now the worst weather that could be met on such a tour occurred. The rain already began on the first afternoon; the next morning when we started it was very foggy, but I did not let that hold me back until around 10 am when the fog turned into heavy rain and soaked me completely, which forced me to head back again.

Despite the bad weather, I had a good harvest and found a magnificent *Mahonia*⁵¹ and *Puya* among many others.⁵² When we returned, we changed our gear at the rancho [hut], lit a fire, cooked food, warmed one self, dried clothes and pressed the plants. The rain lasted well into the night. The next morning, when the weather promised to be a little better, we set out early again, and although it was again heavily foggy and later rained again, the summit was reached. To my great regret, however, I had to forego the desired enjoyment of being able to see the Atlantic and Pacific Ocean from one point.⁵³ We only managed to find our way back with difficulty. I encountered a lot of beautiful plants but could not get seeds from many. A splendid *Odontoglossum*, probably new,⁵⁴ and *O. grande*,⁵⁵ were found in abundance, as well as two green-flowered puyas,⁵⁶ another *Berberis*,⁵⁷ some beautiful ferns, etc.

After spending a third night at the rancho, we returned to San José the next morning via Cartago. I did not see palms there, but three species of oak are the main trees of the high forest region; at the very top I found a *Garrya* [*G. laurifolia* Hartw. ex Benth.] various vacciniums,⁵⁸ a beautiful *Myrtus*,⁵⁹ a tall Umbelliferae [*Myrrhidendron donnell-smithii* J.M. Coul. & Rose], *Gnaphalium*,⁶⁰ a plant similar to *Aconitum*, etc.

It annoys me that I had such bad weather on this tour, but I am thinking about going up again because the vegetation is splendid up there. My winter coat was very useful for me on the excursion, because the wind was very fresh at that altitude and the rain was by no means warm; but the change in temperature did not have an unpleasant effect on me, because I still rubbed with alcohol and a warm foot bath in the rancho prevented a cold. Of all the plants that I have found there, I particularly like a *Loranthus* with orange-yellow, large and long flowers [*Psittacanthus* sp. (*Loranthaceae*)], which grew in considerable quantities on the oaks. In my opinion this *Loranthus* is the most beautiful of the genus and would form one of the most splendid ornaments for our greenhouses, if it were only possible to cultivate it properly.⁶¹ I have also found this plant now and then on legumes and the larger *Myrtaceae*, at an altitude of about 8,000 to 10,000 feet where there is very high humidity.

San Miguel, May 14th. On the 9th of May I left San José to do the tour down here to the Muelle and supposedly on to San Juan del Norte (Greytown) [in Nicaragua].⁶² A German who is traveling to Europe and who lives here has offered to take some plants for me, which I am now packing up. I hope to return to San José in the middle of June. The vegetation here is splendidly beautiful, there are palm trees in such abundance that astonishingly block one's views; there are also beautiful Gesneriads.⁶³ As soon as I have finished the current excursion, I will send a special description of it. Yesterday and today the heat was very great here; now it is raining, and this afternoon I got really wet while I was occupied with a *Chamaedorea graminifolia* [*C. graminifolia* H. Wendl.] and a very beautiful new *Geonomia* [possibly *Geonomia ferruginea* H. Wendl. ex Spruce].⁶⁴ There are only a few orchids here, but many palms, which really confuse me; unfortunately I often cannot

⁵¹ There are no known collections by Wendland of *Mahonia* Nutt. (*Berberidaceae*).

⁵² To our knowledge there are no *Puya* Molina species in the Central Volcanic Range, but there are two species that reach the Talamanca Range.

⁵³ It is possible to see both oceans from the Irazú summit. That occurs only in very clear days in both watersheds. Hoffmann was one of the few and fortunate explorers to see them both on the same day, in 1855 (HILJE, 2006).

⁵⁴ Possibly *Odontoglossum schlieperianum* Rchb. f.: GOETO13868, GOETO13869.

⁵⁵ *Odontoglossum grande* Lindl. [= *Rossioglossum grande* (Lindl.) Garay & G.C. Kenn.]. This is certainly a misidentification as this species does not occur in Costa Rica, but confined to Mexico, Guatemala, and Honduras.

⁵⁶ No *Puya* species are known from this location.

⁵⁷ There are no known collections by Wendland of any *Berberis*.

⁵⁸ There are a number of unidentified specimens of *Ericaceae* collected by Wendland from around this time (GOETO37267, GOETO37268, GOETO37269, GOETO37274).

⁵⁹ There are no known specimens in the *Myrtaceae* collected by Wendland from around this time.

⁶⁰ Specimens labeled by Wendland as 'Gnaphalium irazuense' (GOETO37246) and *G. roseum* Kunth (GOETO37248) were collected at this time from Irazú Volcano.

⁶¹ Wendland made a collection of a *Loranthaceae* around this time, identified as a species of *Struthanthus* Mart. (GOETO37403).

⁶² Muelle (pier) was the place at which people intending to travel to Europe or the east coast of the United States could take small boats to navigate the Sarapiquí River for some 55 km until La Trinidad, at its connection with the San Juan River, a natural limit and border between Costa Rica and Nicaragua. From La Trinidad, they had to navigate some 50 km to reach San Juan del Norte (Greytown) on the Caribbean coast of Nicaragua.

⁶³ Wendland failed to mention here that on 10th May he collected the spectacular aroid *Anthurium scherzerianum* Schott. A transcription of a hand written letter from Wendland describing his discovery of the plant is included in the Introduction of this present work (see MÖLLER, 1903).

⁶⁴ Labeled by Wendland as "Geonomia microstachya Herm. Wendl." (GOETO25618).

find a seed. Fan palms seem to be limited to the warm zone only because I have not encountered one up to now. I also collected some bugs and birds on the side. From San Juan del Norte I will give further news about the outcome of my excursion, but I will save the larger communication until my return to San José.

Article 4

*Travel notes from the court gardener Herm. Wendland
(Excerpt from the correspondence of the same in the H. Z.
as a continuation from page 365.)*

San José, June 2, 1857. You can see from the heading of these lines that I am back in San José, where I safely returned yesterday at noon. As soon as I got here, I asked about the European mail, which, however, has not yet arrived. Thus I am still without any reply to my letter of February 2nd. The post is expected these days, and I am looking forward to your news in advance, of which I am of course most interested to know about your health and also that of others. Heaven grant that I rightly assume that you are all well. I have often and fondly remembered you in the last few days, and even if I did not have any homesick thoughts, I cannot deny that I have thought multiple times: "well, if I could only be over there for a few hours and take a walk through the greenhouses with the old man. How neat and clean it may look there, how pretty the pelargoniums may bloom, how wonderful it may be to sit in front of our doorstep", etc.; then I involuntarily have to look at E's drawing, which is hanging on the wall across from me and under which are the words: "This, dear Hermann, is about how it looks at our place in summer".⁶⁵ In my mind I see you all strolling in front of the house, at this moment it is 8.30 o'clock after dinner for you, no wonder that I involuntarily think of pancakes and salad, for which my mouth is watering! But with that it will be enough.

I followed you in my thoughts, now you may follow me, for I want to tell you about the excursion from San José to the Sarapiquí River or about a collector's struggle with the animal world and lifeless nature, for which I have all the more time because I have returned from that tour with the germs of the so-called acclimatization diseases, which manifest themselves as liver and stomach disorders, and the local doctor has ordered me to abstain from all strenuous activities for a while. You know where the Sarapiquí flows, if not, you can otherwise see it on the map in Scherzer's and Wagner's "The Republic of Costa Rica" [FIG. 42].⁶⁶

I had prepared myself as well as possible for this excursion, my preparations partly taken from the work mentioned above, partly from people who at various times had made their way down to San Juan del Norte or Greytown, as the English call the city. "You want to go to Sarapiquí," said one of them, "well, then I wish you a happy journey. God knows you could give me anything, I would not go down with you; I have done the journey once and I will never attempt it again." "You want to go to the Sarapiquí?" asks another, "then stock up on provisions, you will not get anything there, take everything with you in abundance, you would not be the first to starve there, take at least 12 bottles of cognac, which I keep a good stock of, and you will get further with a splash of cognac than with a peso (gold thaler, dollar)." "You want to go to the Sarapiquí?" asks a third person, "there are tigers

⁶⁵ The identity of "E" is not known.

⁶⁶ Two travelers, Moritz Wagner and Carl Scherzer, an Austrian typographer and a German physician respectively, visited Central America in 1852–1853. As a result of their expedition, in 1856 they published the book *Die Republik Costa Rica in Central-Amerika* [...], which attracted many Germans to Central America.



Fig. 42. – The map of Costa Rica referred to by Wendland
[WAGNER & SCHERZER, 1856: unnumb.] [© Bibliothèque de Genève]

(jaguars) in abundance there, you must not come back from there without having shot at least half a dozen tigers, lions (puma), tapirs, deer and wild boars;⁶⁷ just take Jesús with you, or maybe the old man himself (Don Emanuel Sancho) will accompany you [father and son, owner of a hacienda in San Miguel], they know how to hunt tigers, you see, these skins are from there, look here, Jesús stabbed that one with a lance.” “You want to go to the Sarapiquí?” asks a fourth person “well then, I congratulate you, you will find pretty vegetation there, but you will find out how difficult it can be to dry plants, just wait, and you will thank God when you get back again; that rain! You have no idea, it rains there 366 days a year, and those paths, those mud holes! Continually the mule will sink up to its ears in the mud, it throws you over the front, and when you then sit in the mud with both arms up to your elbows and then have no water to wash, that will be your smallest problem, I tell you. Yes, you will then know yourself what the Costa Rica trails are really like, until now you have only known the good trails in the dry season, but now the rainy season begins. You will also come across abysses, where I advise you to dismount, in case you tend to get dizzy, there are some very dangerous places there.” The answers that I received in response to my inquiries went something like that. After asking around a lot, I was able to get a rough idea of the beauty and problems to expect, and with regard to the provisions to take with me, I oriented myself towards the men who seemed most practical to me. So I adequately supplied myself with the most essential things for three to four weeks, I started the excursion on May 7th.

My little caravan consisted of Jäger, my German companion I had previously hired for my excursions in Costa Rica, and who made the whole tour on foot alongside the guide, two pack animals, a guide and

⁶⁷ The names for these mammals are: tiger, jaguar (*Panthera onca*); lion, puma (*Puma concolor*); tapir (*Tapirus bairdii*); white-tailed deer or “venado cola blanca” (*Odocoileus virginianus*); wild boars or “chanchos de monte” (either *Tayassu pecari* or *Pecari tajacu*).

myself who sat on a mule. At noon we left San José for Heredia, a small, friendly town two hours from San José. Although I would have liked to have ridden on for a few more hours because of the fine weather, the mule-driver did not like it for reasons partly unmotivated and partly motivated; in short, I had to stay there. A muleteer here in this country has his own will, and he seems to have entered into a kind of kinship with donkeys and their hybrids as a result of the work he was used to from his youth; in such cases, neither scolding, pleading, nor paying will help, in an emergency, however, something can still be done with the latter.

The real reason for my involuntary stay did not come apparent until the next morning, when there was a weekly market, where Don Camill [Camilo], as the driver was called, firstly said he had to get some small purchases, which in turn caused a very unpleasant delay in getting ahead. Staying in the house belonging to a relative of the owner of the mules, I refreshed myself a bit and then took a little promenade with my companion to take a look at the city and also to be released from the uncomfortable and not very fragrant lodging for a while. The locals, of course, immediately know that you are a stranger, and since the country is indirectly at war with civilization and directly fights the Walker gangs of filibusters, and everyone that looks strange is either a filibuster or a Yankee ([Footnote] Filibuster and Yankee are synonymous in the eyes of the crowd) in their eyes, we are also regarded as such, and every now and then the latter word echoed over to us. Near the end of the walk we heard cannon shots from the direction of San José as Walker's demise had been prophesied during the last few days; and they wanted to see him dangling in the market square of San José, and nothing was more natural than to think of great victory, since the shooting went on incessantly.⁶⁸.

The news that Walker had capitulated, that he and a few officers had received free retreat, and that all war material had passed into the hands of the Confederates, was not long in coming. The true part of this story, however, behaves differently, because what people say in general and what is also admitted by the newspapers, is that Walker and all his officers were given free retreat (he is said to have departed with music), that all his people became war prisoners and all war material was left behind. Walker has now also withdrawn with his officers, has left behind all his men and almost 300 sick people, but regarding material, shotguns were made unusable, cannons were partly nailed up or thrown into the sewers, etc. so that the confederates hardly ended up with any war trophies. It is also very doubtful whether the flag that was hung up on the market square in San José was really Walker's. A general who was also in the field said to a gentleman who is a friend of mine while looking at the flag: "yes, if only they had copied it correctly!"

One cannot say that the negotiators of the Costa Ricans were smart men, otherwise they would have been very grateful for the prisoners of war; but now those people are a great burden for the country. These guys do not want to do anything, they want to be sent to the United States, and there is no way of forcing them. On favourable terms these people could now take possession of Costa Rica with ease; they cost considerable sums every day, and it will cost the almost ruined country even more to send these people away. But enough of that.

Soon the joy started here too, the bells were rung, a high mass read, rockets let off by the crowds, later a music band played in front of the

⁶⁸ Walker surrendered on May 1, but the news was not known until May 7, so that at noon celebrations started in San José.

mayor's house, then they wandered around the city, followed by the most prominent citizens and those followed by a lot of common people moving at a solemn pace. Before the procession some men went and set off fireworks. The procession again reached the market square, at the eastern end of which is the largest church in town. Diagonally opposite it, I stood with my companion leaning against a pillar under the veranda of a corner house and watched the procession with the most honourable faces in the world. We were noticed there, the one drew the other's attention to us by whispering a soft Yankee to his neighbour, and little by little we were surrounded by a group that gazed at us as if we were who knows what. Finally, but after much hesitation, a decently dressed young man took the courage to address me in English. It took him a lot of effort until he got out with the language, to which he was urged by the companions, sometimes from the right, sometimes from the left, by light pokes in his side. The same person asked about this and that, then whether I was a Yankee, which was followed from my side by a simple "no", then he asked me if I was an Englishman, and since I answered this question just as quickly, he became visibly embarrassed and seemed to think about the names of other nations.

Since there are now so many Germans living in Costa Rica, this name came to his mind. My simple answer "yes" revealed my home country, and he now wished to know something about Walker, which he was working towards. I told him that I would unfortunately not be able to satisfy his wishes, since neither my companion nor I would have had the honour of being introduced to Walker, nor would have come into any contact with him. This answer, which he was in any case not prepared for and which he also pretended to accept with great disbelief, had to be communicated to his two friends, who were also hoping to see their curiosity satisfied as well.

During this break I made myself a little space with my elbow as the people standing so uncomfortably close to me, which had become extremely annoying. Then, the little Costa Rican came back to asking questions, who, however, had been even more intimidated by my monosyllabic responses and resolute answers to the questions put to me earlier. After a few minor exchanges, the question finally came out of what we are doing here and where we were going. I also answered these questions very sincerely to him, saying that I am staying here in the country to make natural history collections and that I am about to go to the Sarapiquí. That a person could collect such things and only for that reason stay here in the country, however, seemed to him to be beyond the realm of his comprehension. Now that he seemed to know enough, he set off, but not without first wishing me a happy journey and shaking hands for a good-bye. Some of the onlookers left with him, and I had time to laugh a little with my companion at the incident.

During that time dusk had descended, and we were just about to move away when I suddenly saw the little nuisance coming up to us again. He restarted the conversation and then quite pitifully handed me a handful of small cigars, here called puros, which are half the size of our normal cigars.⁶⁹ I refused to accept them and told him that I was adequately supplied with cigars. Not satisfied with this, however, he asked me to accept them as his gift, as they were very good and made of the best cigar tobacco. Since my refusal was in vain and I did not want to offend him at all, I finally accepted it, which gave him great pleasure, and then he suggested that we join him for a walk to the

⁶⁹ At that time, instead of the Iztepeque cigars, made in El Salvador, some people liked to smoke the shorter and more aromatic Chircagre cigars, made out of tobacco grown in the Irazú Volcano foothills.

market square, to which I also consented. During the promenade his English teacher, an Irishman by birth, came along, the same, already elderly, had been in the service of the transit company in San Juan del Sur and had been completely looted there by Walker's gangs. He asked the same questions as his pupil and seemed to take the answers as incredulously as he did. However, I finally got so tired of his constant back and forth with the same questions that I told him that I did not care at all whether he believed my statements or not, only I asked him to spare me such questions. He had no further answer to this decision than the words: "if I knew that you belonged to the Walkers I would stab you." I pretended not to have heard or understood the words and asked my little Costa Rican to move the people who had massively gathered around us again to part, as they are very annoying to me. He corresponded to my wishes and he asked the people to move away, because we were not filibusters, but Germans. We walked across the square a few more times and then said goodbye. Under somewhat less favourable circumstances and towards a not so exceedingly good-natured person, this conversation could easily have ended less well for us.

Not feeling any inclination to spend the night in our quarters, I sent my companion to ask a respected resident of the city whether we might spend the night in his house. The same came back with an affirmative answer, and we went there shortly, were received in a very friendly manner by the family and were given a cleanly furnished room at our disposal. The next morning, when we returned to our quarters, the owner felt a little offended that we had not spent the night in her house, but she was soon satisfied, and a sip of cognac that we offered her soon satiated her completely.

At eight o'clock, after Don Camill [Camilo] had done his shopping, we left. Our way led us to the town of Barva.⁷⁰ On the way there we passed many visitors to the market, among whom I noticed many pleasant-looking faces, especially among the female sex. Barva was ridden through, the strangers were viewed with curiosity, half-hidden, and the word macho (mule),⁷¹ which is now more and more replaced by the word Yankee, with which all strangers here in this country are "honoured", just like the word muff is used in Holland, flew around the houses as fast as lightning, and drew attention to us. In general, I have noticed the silly running away of children and the female population when strangers become visible everywhere in the countryside, with the possible exception of those who live on the busier roads from San José to Puntarenas. Often they run as fast as they can to get to a house, close the door half and look half-hidden through holes, cracks and windows.

Already on my first excursion further into the country, our constant gathering and our appearance, me on horseback or mule, usually loaded up with the vasculum, my companion on foot next to me with the rifle on his back and sabre stuck in snake skin instead of a machete to the side, reminded me of country constables, as they are sent out to search for fugitive jail-breakers. Almost every time I thought of these stewards as soon as I saw children, girls or women running into the houses, and I could not help faintly saying to myself in Low German "the gendarmes are coming, the gendarmes are coming." Often our dress was so adventurous that I had to laugh at myself and at my companion, especially when we came home from a major excursion and we were not always the cleanest and tidyest in our appearance.

⁷⁰ Barva (at 1180 m elevation) is located in the foothills of the extinct Barva Volcano (2906 m).

⁷¹ The word "macho" in Costa Rican Spanish means "blond". In general Spanish, the word macho is the equivalent of male.

From Barva it went gradually higher though always uphill and downhill, often across small streams, initially mostly through coffee plantations, then between sugar fields and over meadows, until a wider path connected with the one coming from the small town of Alajuela and took us directly into the forest and to the mountain range that was in front of us and that we had to cross.⁷² When entering the forest, botanizing began, and it was not long before my vasculum was full of the most wonderful things. I was quite surprised, however, to find such a good path, since in fact I had not expected it. It was already late in the afternoon, and the clouds were sending their fog towards us in bulk, when we reached a government building that is located at the crossing, shortly before a heavier rain set in. The large building, not unlike a barn, but built entirely of wood and covered with roof tiles, provided us with a desirable refuge for sleeping and other necessities, especially since there were two partitioned, somewhat suitable rooms on the north-eastern side. Opposite was the so-called kitchen, a small room where three stones placed close together formed the fire stove. But in order to get to the chosen living room, if I may call it that, or from there to the kitchen, you had to go through the larger room. I can describe this larger room as the hallway of the barn that was open at both ends so the ox that were kept here and had their gathering place namely at night granted free entry and protection against wind and weather. On the routes mentioned, however, there was a risk of getting stuck in the excrements of these animals, and the first thing that had to be done was to find a way through this material, which is so valuable to us, but which has not been utilized here.

As long as there was daylight plants were prepared, then coffee was made, somewhat refreshed, notes were written down, etc. After all of this was over, there was still an hour to chat with the driver. He was a very pleasant person, courteous, well-behaved, and he liked to talk, namely about tigers and tiger hunts. "I have", he said among other things, "bolted the door of our current lodgings with a strong tree trunk; for it was not very long ago when a country man slept here at night and was suddenly awakened by the scratching of a large tiger at the door and by the barking of his dog, which was nearby. The tiger broke through the door, seized the dog, and went off with its prey. The same tiger came out at another time, when again a farmer was staying there and paid him a visit; but he, a strong man, armed with a good machete, opened the door at which the beast is constantly scratching a little, and slashes into its paws, whereupon it growled away. We have not heard from the animal for some time, but it is better to have the light, rifle and revolver at hand". No sooner was this said, the doors were examined again and well barricaded, with the driver showing us the really enormous features of the tiger's claws, the hatches well fastened, rifle and revolver, sabre and knife at hand to repel any attack, and then we laid down to sleep. However the half-awaited for tiger did not come that night, but I was instead attacked by other blood-thirsty animals, which seemed to have a strange appetite and tried to attack en masse. The unequal fight was taken up, but after a few skirmishes I gave it up and let it be.

Sleep was restless, partly because of the causes just mentioned, partly because of the oxen, which seemed to be in constant duel among themselves; further, the wind, which was very coldly blowing from the north, often woke me up, and in spite of being covered with a thick

⁷² The Cordillera Volcánica Central (Central Volcanic Range) can be crossed at El Desengaño Mountain Pass, located between the Barva and Poás volcanoes. The connection with Alajuela is located further, near the village of Vara Blanca (1800 m).

cotton hammock and two thick woollen blankets I was very cold. It was just as cold for my companion and the driver in his more than light clothing and equipped with a simple blanket, his teeth chattered in his mouth. The place where I was located is called Designator [Paso de El Desengaño], its height is estimated at 7,600–8,000 feet above sea level, so the shivering seemed to me quite forgivable, especially since the body was used to being in lower and therefore warmer areas for a long time, and had assumed greater irritability to the cold.⁷³ Right from the start I had decided to stay here for a day and explore the high-altitude vegetation a little, and that is what I did.

In the morning of May 9th, like most of the mornings here in the country the air was deliciously clear, and after a little coffee had been brewed and the frozen limbs had warmed up a little from it, an excursion was made into the forest that was close to the building. The vegetation at this height is splendid, varied to the point of unbelievable, everything thrives, one plant is more beautiful, the other more interesting than the other; it is a competition of forms that borders on fabulous confusion. You have not yet got the right number of one plant species in the vasculum, when seeing yet another one that must also be taken with you; one reaches here, one reaches here and there, and almost every blind grip offers something interesting. From afar you can see something very magnificent, you cannot wait to take a closer look at it, you run, jump and suddenly you are lying on the ground. So if you are too rash in the plucking of nature, you are admonished and have to go to work calmly and carefully. Now you have filled the vasculum and you pack as much as possible onto yourself and onto your companion, you want to go out to the pile of paper to process what you have gathered, you do not want to gather more as a matter of principle; you do not want to see anything anymore, and yet you cannot stop squinting. A look aside has seen something exotic looking but you do not look at it any closer, just not on principle, you go a few steps further, stand still and the thought comes to you, that could have been something curious, that looks peculiar but on principle you do not go back. “To hell with your principles”, you turn around and look! What is it? Yes what? It has to be an orchid, yes, no, no, yes! You have never seen anything like it. But the single specimen that you hold between your fingers is not enough, you want more, you think of friend R.,⁷⁴ or other friends, you search as if it were a question of the happiness of mankind or of progress, but the search is in vain. “Where one grows, several may grow” does not always apply. Well, where do you put that specimen? It must not be entrusted to the companion; but where to put it? The vasculum is full and more than full; carry it in your hands? There it could be ripped apart by the bushes, no, that will not work; the notebook still has a few sheets free, and there it is placed. And now go out to that forest, where not even two plants of the same kind grow together; out, just forward!: “Let that bug be, f...k it” one whispers to his companion, who is at the moment trying not to let a specimen escape from the alcohol bottle. Forward, forward! And so you come back panting in the old cowshed. This is how it goes with the collectors; they are never satisfied and never hit their targets.

⁷³ The altitudes he mentions (2,300–2,438 m) are incorrect. It corresponds to about 1,850 m. Today there are two small villages in that area: Concordia (1,780 m) and Los Cartagos (2,020 m).

⁷⁴ Possibly referring to the orchidologist Heinrich Gustav Reichenbach.

As soon as we got to our accommodation, the collected plants were pressed and afterwards the knapsack was taken out to have breakfast, and only then you notice that you have gotten hungry; also the sun is already high in the sky. The mule driver, whom I had not seen since the

coffee break, had disappeared and was nowhere to be found. Quickly we looked after our belongings to check whether anything was missing; but everything was in order, and so we rightly suspected that he was looking for the animals that would probably have preferred to go home without baggage. At 4 o'clock in the afternoon the poor fellow arrived with run-aways, and he did not complain at all. These people are very used to the animals running away, and although they often happen to have to run after them for hours, they do not become any wiser. I have often marvelled at how those people do not run out of patience in their business; they often send a rough curse after the animals, but that is all. To be a mule driver seems to me at least the toughest of all lots; the patience of these people is all the more admirable. Often it seems to me as if these animals, since they are neither horse nor donkey, want to express their bastard nature with all possible means, and vent their anger on humans in the most calm and stubborn way; and always do exactly the opposite of what they are supposed to do.

Around noon we made another excursion deeper into the forest and in another direction. The same abundance of species as before,⁷⁵ now a beautiful Gesnerid, now a splendid *Vacciniaceae*,⁷⁶ a *Thibaudia*,⁷⁷ then a splendid *Siphocampylus*, masses of small-flowered *Pleurothallis*, splendid ferns, both tree-like and creeping, of the latter there are beautiful forms from the genera *Trichomanes* and *Hymenophyllum*, gorgeous lycopodias and selaginellas,⁷⁸ even palms as well at this altitude, both big and small! A *Euterpe* (species of palm)⁷⁹ growing here extended with its leaves into the highest forest trees and was particularly picturesque in the valleys and in the company of tree-like ferns where about a dozen stood together in a small space.⁸⁰ My friend Fink would find enough material here to make studies for his fine sketches [FIG. 43].⁸¹ This is quite a different palm house than the one in Herrenhausen! What makes these little valleys that are everywhere up here sunk in the mountains so very picturesque, is a beautiful and large-leaved *Urticaceae* [possibly a species of *Cecropia* Loefl.]; it is common here and will be a nice acquisition for our greenhouses if I can bring germinable seeds back with me. Such things should now be pressed, but the chosen and usual customary format for herbaria is not sufficient for such giants, you have to be content with fragments of leaves or with leaves from young plants, even elephant format would not be sufficient in such cases, and it will be necessary to look around for the Montblanc or Dalawadsheri format next.⁸² In the evening we barricaded ourselves in again, the light jacket replaced by a warmer one and therefore we did not freeze as much as the night before.

On the following day, Sunday May 10th, we got up already at 5 am, had some coffee and started moving at 7 am. The road got a little worse, it went constantly downhill in a north-westerly direction, and the driver said "look, there is San Miguel and over there is the Muelle!" but one saw nothing more than trees, one crown of leaves next to the other, a veritable sea of leaves. The path follows the left side of a valley, mostly at the middle of its height, on the right it goes downhill as abruptly as it goes as steeply uphill on the left; from below comes the sound of a raging creek, which further down forms a beautiful waterfall of about 150–200 feet, unfortunately only partially seen from the path.⁸³ While one is riding downhill, botanizing is done from the donkey, and soon this plant or that plant leave you but a hundred others step into their place. One calls to his companion "alas; look there, please get me that



Fig. 43.— "Tropical landscape or palm garden".
[Pencil on paper board by Carl W.E. Fink, 1873;
Gottfried Wilhelm Leibniz Bibliothek cat. n° KGBH29]
[Reproduced with permission of GWLB, Hannover]

⁷⁵ Early to mid-May 1857 was one of Wendland's most productive periods of plant collecting.

⁷⁶ *Vacciniaceae* is referable to *Ericaceae*. There are a number of specimens of unidentified *Ericaceae* collected by Wendland from around this time (GOET037270, GOET037271, GOET037277, GOET037278).

⁷⁷ *Thibaudia* sp. (*Ericaceae*); see previous footnote.

⁷⁸ For example *Selaginella moritziana* var. *suberecta* A. Braun (B 20 0095367).

⁷⁹ Labeled by Wendland as 'Euterpe altissima' (GOET025551). It possibly corresponds to *Euterpe precatoria* Mart. because of the distribution, but unable to be identified as the specimen consists of only a few leaflets.

⁸⁰ About 50 species of tree ferns are recorded for Costa Rica, in the *Cyatheaceae* and *Dicksoniaceae*.

⁸¹ In reference to Carl E.W. Fink, artist and graphic designer who was commissioned to illustrate plants at Herrenhausen (see Introduction).

⁸² Here Wendland is making a joke about specimen sheet sizes. According to historical paper formats, Elephant format indeed existed. Since the elephant is such a colossal animal and yet the paper is not big enough to mount the plants, he makes up words for paper formats that sound even bigger, i.e. the Montblanc format (highest peak of the Alps) and the Dalawadsheri format, which sounds like Dhaulagiri, which was believed to be the world's highest mountain in the beginning of the 19th century (but indeed the seventh highest mountain).

⁸³ He probably refers to the San Fernando Waterfall that even today cannot be easily seen from the road to Sarapiquí. It is located near Cinchona, a village established during the Second World War for the production of quinine to control malaria.

beautiful *Melastoma*!”. You stop, but the pack animals go ahead, the animal you are riding has no desire to wait and let its companions go ahead, so it also charges onwards. Since the plant was a bit unwieldy anyway, you shout to your companion: “well, just leave it there will be another one soon!” Yes, but for the most beautiful ones, we did not find another specimen. “Well, that serves you right”, you say to yourself. “Why did you not collect the first plant you saw, you know that if you take the first specimen you see, then you will find it more often, but if you do not take the first specimen you see, you will never find it again.” That’s how it went here too. One then peers around eagerly and angrily and wants to use whatever is in your power to rediscover what has been passed over; in one’s zeal one does not pay proper attention to the *Rubus* and *Solanum* tendrils, and before one knows it they have cut one’s hands and face; if it gets really bad, your hat gets stuck in the bush or falls into the mud! The blood is boiling, it is the donkey’s fault, why is it always looking for the most comfortable way for itself?

The anger has to be let out and the donkey gets it, yes the donkey! It goes on incessantly, the path gets steeper downhill, and suddenly you turn into a side valley and have to ride through a creek. It is the Río de los Ángeles [Río Ángel]. After half to an hour of riding you arrive at the Río de la Paz [Río La Paz],⁸⁴ which tumbles over huge boulders with roaring haste. The water is splendidly crystal clear and invites you to take a refreshing drink. Once you have reached the opposite bank, you will be rewarded by the sight of several picturesque waterfalls. As innocent as this stream appeared, it will swell considerably in rainy weather and then not be passable without danger. A tree has been cut down upstream for pedestrians, the trunk of which serves as a bridge. Animals, however, have to swim through it, they are then mostly attached to a rope so that they are not carried away by the current and thrown 10 feet further down over a mighty boulder 20–30 feet deep. “It is a shame,” I thought, “that we cannot stay here for an hour and refresh ourselves with a glass of beer or a bowl of sour milk; how very differently this place would be used in Europe.”

From here the path goes up a little again, only to soon fall down again all the more suddenly. The creek that has just been crossed and the one that has always been to the right now connect with the Sarapiquí, coming even further from the right, which can be heard raging in the gruesome depths. From the side of the valley, on which one rides, one does not see much, as the treetops obstruct the view into the distance; the more imposing to the beholder, however, is the valley itself in certain places, especially where there was a landslide on the side on which one is located, and which has taken all the earth down to the base rock and all vegetation with it into the valley. One is overcome with dread when one hears the large and raging river 1,000 feet and more, especially when the thought occurs to one; “what is the soil like under your feet, is it firm?” What a glissade at an angle of 30–40 degrees! You quickly leave the eerie place and only then do you see that one has stood on a 2–3 feet wide strip of earth from which it goes steeply uphill on one side as well as steeply downhill on the other.

Not far from there I saw a small palm tree on which there were ripe seeds, and I was compelled to descend and proceed into the forest. But how great was my astonishment when I immediately found seven different species of palm together on a patch of a few square rods. Only after repeated requests from the driver that we had to leave in

⁸⁴ The correct name of the first one is Río Ángel, and gives rise to La Paz Waterfall, which has become a popular tourist destination in Costa Rica. The nearby Río La Paz does not have a waterfall.

order to escape the threat of rain, which might start soon, did the journey continue, after everyone got his pack to carry; the vasculum, which was already over packed anyway, is rarely large enough to hold instructive palm samples. The rain, which was advancing closer and closer, made me ride a little faster, and soon after I saw Cariblanco's hut, our travel destination for the day, it began to fall in torrents. My umbrella, however, held off the first impact, and I reached my night's quarters for today before 3 pm reasonably dry.

As soon as what had been collected was processed and something was eaten, my curiosity forced me to go outside especially to look at the roof of the open rancho (hut) opposite the residential hut. It was overgrown densely with plants up to four feet high, and it would have been better thought of as a botanical garden, in which the identification plaques had been lost due to some accident, than for which it should be regarded according to its purpose. On closer inspection of it I found a wealth of different plants such as is not known in Germany in such a small area. So I noticed, for example, several different Gesneriads, Melastomas, *Rubiaceae*, a lot of small orchids, among these were beautiful growths of *Sobralia*,⁸⁵ unfortunately without flower, also ferns in abundance, not to mention the mosses, lichens, liverworts and mushrooms.

The hut in which the night was to be spent was fairly clean, and the owners of it were also distinguished by their elegant clothing. The daughter of the house, a girl of 14–15 years, was one of the few real beauties I met in Central America; it was the last week that she was to spend in her parents' house as the following week she was to marry in the capital. The mother, who Wagner mentions as well, still showed traces of great beauty; in particular that beautiful white complexion struck me in both of them, which is so seldom found in the locals. For little money we got the very simple national fare, mostly consisting of a pair of eggs, tortillas, small round cakes baked and roasted from grated corn, which in this country take the place of bread, black beans, the actual national dish, of which there is no lack of at the tables for either rich or poor, and a banana roasted over the fire.

The next morning, May 11th, departure was at 8 am. Don Camill [Camilo], our driver, had to go back to the capital again to fetch a passenger, but now Don Manuel Sancho, the one with the hawk nose, the owner of a beautiful property in San Miguel and at the same time owner of the rented animals, himself led me to his apartment. The road, which up until then had been pretty good, got worse the more we got to the lower and wetter regions. At first it was pretty flat, and the trees on both sides of the path had been felled to make the path drier; but the very moist and humus-rich soil allowed a multitude of Colocasias with their gigantic leaves to develop magnificently and to block the way almost completely so that Don Manuel, the self-declared director of the Sarapiquí Way not without delight, felt impelled to significantly shorten the most intrusive and lush ones with his machete, which he knew how to use with skill.

All along the way there stood a proud palm tree very commonly with a slender 100–200 feet high trunk; it belonged to the genus *Triartea* [misprint for *Iriartea* Ruiz & Pav.] and observed by myself here for the first time at close range [*I. deltoidea* Ruiz & Pav.]. I was delighted by the roots descending 10 feet from the trunk. The path continued trailing further up in the valley again, one passes some very dangerous

⁸⁵ The type specimen of *Sobralia lepida* Rchb. f., was collected around this time (W0025011).

places where one's hair stood on end, but on the other hand one enjoys the beautiful view down into the valley or onto the opposite side, where the giant forest trees are still towered over by slender palm trees, and so one arrives at Cuesta del Congo,⁸⁶ the horror of all horrors. Crossing this little mountain slope is indeed very difficult for both humans and animals, but after the gruesome descriptions I had heard of it, I had imagined it to be much more dangerous. In general, there is no path; the mules always look for the most comfortable steps for them to get up with their burden, often having to climb or jump up two to three feet abruptly, and there are knee bumps in abundance if one is not careful enough. Once you have reached the top, it appears as if there was once a path. From there, you climb continuously and steeply downhill. Sitting firmly in the saddle, one is well advised to let the animal have its free will as it knows the way and its instinct leads it always to the less dangerous points and mostly also happily over the difficulties to be overcome. Once you have finally reached the foot of the main abyss, you continue for about an hour in the forest, but still downhill on mostly bad and marshy paths, where the animals sink halfway up their legs into the muddy and sticky ground; then comes a clear spot and you have a beautiful green and wide clearing ahead of you.

Don Manuel lets out an ear-piercing bellow, which is echoed from a hut completely surrounded by plantains, you ride there and are greeted by the quite numerous family and seventeen dogs, who all know their master's voice. One quickly unpacked and the things were carried to the room intended for me, the guest room, put in order, paper unhooked, the travel bag with the most necessary travel equipment, etc. was freed from a mat, the hammock is stretched out and set up as comfortably as possible for a fourteen-day stay. First of all, however, I looked for a stick to control the dogs, which until then had probably always been allowed free entry into the room that I had now taken ownership of, but instead of a stick I found a strip of leather made of tiger skin that otherwise served as a riding whip, and through the most extensive use of it made the beasts understand with great effort that I wanted to live here alone. Only the repeated and rough use of this piece of leather kept the beasts away, one of which was even more hungry than the other; they were not unlike wandering skeletons that later on only entered when plagued by their gnawing hunger. (Conclusion to follow.)

Article 5

*Travel notes from the court gardener Herm. Wendland
(Excerpt from the correspondence of the same in the H. Z. conclusion
from page 516.)*

At lunch, when the host and the housewife were present, I tried to find out the price of the daily stay, but instead I heard so much about things that were absolutely unrelated to my simple question that I myself had to be content for today without seeing my question answered. The afternoon went on with the pressing of the plants that had been collected in the morning and changing the paper and drying of the ones collected before. In the evening I became better acquainted with the family; people chatted about this and that and asked about this and that. Since I was also the carrier of a letter of recommendation and two bottles of Dutch genever⁸⁷ from a gentleman from San José who was

⁸⁶ Cuesta del Congo was a steep incline along the route between Cariblanco and San Miguel.

That name is no longer in use.

⁸⁷ Dutch genever or gin is the juniper-flavoured traditional liquor in the Netherlands, Belgium and adjoining areas in northern France and north-western Germany.

very friendly to me and to whom Don Manuel was also very indebted, I was treated very attentively by the family and satisfied in every respect with regard to my wishes. When the light was lit and I had refreshed myself with a cup of nice national coffee, I took out my inflatable bed and started to the amusement of all the hut dwellers who watched things with open mouths and could not understand what its purpose was – to inflate it with a miniature version of bellows. In my life I will not forget the faces that people made when one piece after the other increased, as it got inflated in three sections, and then I put the bed on top of the hammock. “That is nice, very comfortable; yes, the Germans have quite some tricks in their heads, they know more about how one has to live in this country than we do” and similar types of comments hit my ear. I advise everyone who wants to travel to this country to take such a comfortable bed with them from England; at that time, I did not want to buy it, shying away from the expense, but a “never mind, you must have it” did not allow me to omit it, and the longer I have used it the more convinced I am of the sheer convenience of it. Then the comfort is to be considered as here the only choice is between bare earth and a cowhide. The former is to be avoided for many reasons and on the latter sleep who can; however, I have often had to endure many nights in a row on a cowhide after I had not taken the inflatable bed in order to avoid a greater increase in pack-weight for myself; however I never got used to it and the next day I always felt so stiff that it often became a nuisance for me while working. But when a pack animal can be taken with you, five pounds more can easily be added to the pack.

On the following day, May 12th, I made two excursions into the forest. Both were very productive. Everywhere I looked or stepped there was something new, one species of palm following the other as if they had been placed there on purpose for me; but I was especially pleased about a simple-leaved *Bactris*⁸⁸ and a *Geonoma*,⁸⁹ which occurred in the thousands and thousands. I returned home richly laden, everything was then packed in paper. As the sky was already very cloudy, the bundles were placed near a small fire to dry, which was set up for this purpose in the guest room, which also happened to be the dog's kitchen. The smoke was of course unpleasant, but that could not be avoided, and it could flow out on all sides fairly undisturbed. When this was in order, the collected seeds were dried partly open, partly put in paper capsules, and lay out on the so-called beds, a slatted frame covered with cow skin. No sooner had it been done than lunch was called. Today I wanted to know the price people were asking for my stay. I had to use all my energy to help to get through my query, and at the same time to work all my seriousness so as not to laugh in the face of my hosts. I asked my question with simplicity, and I could hardly believe my ears when I was told that they wanted to plant corn in San Miguel, when we arrived, and that they, I do not know anymore for what reason, had been prevented from doing it. I asked for the second time and learned from my landlady that she had not gone to confession for a year, and that in these days she had wanted to go to Heredia to see her confessor; but since she had heard of our approach, she would unfortunately have been compelled to postpone her plans for another four weeks. In doing so she told me the great number of her sins, and I had to listen, whether I wanted to or not, as if I had been her confessor myself. It went on like this for a long time; all sorts of objections were made in order to distract

⁸⁸ *Bactris obovata* H. Wendl. ex Schaedtler (GOET025058).

⁸⁹ Probably *Geonoma congesta* H. Wendl. ex Spruce (GOET025567) or *G. cuneata* H. Wendl. ex Spruce (GOET025568).

me from my intention, I was told about this and that, and when Don Manuel and his wife thought to have appeased me, I took up my question again and finally got an answer, after I heard more about the great-grandfather and the great-grandmother and other family matters, more than I wanted. The demand they made was not exaggerated, as after all these digressions I had prepared myself for larger sums of money. Over all this, the time for lunch had passed, so I went back to my room. But what a shock I got when I entered there! Imagine, an old mother hen with the respective number of chicks was on the bed where the seeds lay, and all were busily scratching and pecking. I cleared them away and tried to match up what belonged together, and now I had to fight not only with dogs, but also with the always and everywhere chickens. But that was far from being the only trouble. The owner was a great lover of guinea pigs, of which he kept at least half a hundred of all possible colours in his hut. These were quite tame and constantly shuffled under my feet, and they had in their mouths everything that I threw away from the green parts of plants or what I accidentally dropped, they also constantly nibbled at the plant folders and ate away the plant remains that protruded from them, so that this too gave rise to frequent quarrels and serious brawls. Even calves intruded in order to feast on the protruding plant remains of the plant folders, into my estate, which indeed had the hole of a door, but not the door itself, which for this reason could not be closed.

Early on the morning of May 13th, in front of the hut, where there was a kind of cordoned-off courtyard, I built a wooden construction at a height of five feet above the ground, so that I could dry the things I had collected in the sun. In the hope that everything would be safe here, I went on an excursion into the forest in the direction of the banks of the Sarapiquí, where I also found the rare and beautiful again, and from where I soon returned richly laden. But how great was my astonishment when I went to get my plant portfolios to put the new things in. Two pieces were missing. A cow had entered into the courtyard, which was not always carefully cordoned off, and had pulled down the folders it had probably sniffed at, pigs had run away with them and had dragged them through the deepest mud; so I found one in the dirt, the other in the meadow in front of the hut. The dogs had also found their way to the plants in my living room during my absence, taken two of several preserving jars that I had in a small box on the ground and into which I used to place living plant rhizomes and eaten away the bladder that served as the stoppers. I found the glasses when I looked for the portfolios. The dogs are mostly fed raw and cooked bananas here and they seldom get meat or other food, which sufficiently explains their hunger, especially given that they are kept in large numbers here. I have even seen them eat untanned leather and raw and not fully ripe corn on the cob. The fact that the dogs are kept in so large numbers in these settlements is also done for the sake of protection against humans and namely predatory animals, but there is also another reason. Because they are never fed completely full, and are constantly hungry, they are forced to look for other food and find this by eating a lot of harmful vermin, such as snakes, furthermore carrion and all other foul-smelling animal substances, and where they find good assistance from the pigs, chickens, and ducks, which are raised in considerable numbers in the settlements.

Next to the animals just named, the vultures [*Cathartes aura* or *Coragyps atratus*], are of the same profession, indisputably among the

most useful animals of the hot countries. These in particular keep the streets clean and are therefore often jokingly called police assistants by Europeans. You can meet them in the vicinity of every settlement, but they are particularly common in cities and villages and their surroundings. Everywhere they sit on roofs and trees and wait for a snack. If a large animal such as a dog, cow, horse or mule dies, no one takes the trouble to bury it, but it is just brought outside of the city limits and placed in a meadow. But as soon as the cadaver has arrived on the spot, the vultures, which are able to smell a carcass from an unbelievable distance, fly in from all sides, and in a few days nothing is left but the skeleton of the animal, which is then completely cleaned by all kinds of flies, ants, and worms. If an animal dies on the road, it remains in the same place where it fell, and no one makes the slightest effort to pull it aside, although it can often be very unpleasant for travelers because the horses and even more so the donkeys often, in spite of all efforts, cannot be moved to pass the bleached bones. One can often overcome this by letting an already tired and less shy pack animal go ahead, followed by the riding animal, but in most cases one is forced to dismount and pull the mule past, or to ride around the place by a long detour.

On May 14th it rained almost the whole day, and I was not able to do much outside, and I had as always the case on such days, had my hands full to reasonably dry the paper. The floor under the roof of the hut provided a suitable opportunity for this, however, only a few days later my fear came true that once the cats got wind of the paper up there they would use it, and so they spoiled a few sheets for me every day. On the same day a gentleman I knew from San José arrived in our quarter to travel to Europe via the Sarapiquí and San Juan del Norte. He asked me if I wanted a bottle of beer, whereupon I took out my imitation Limburger cheese in order to return the favour to him and at the meal we were royally amused and we felt halfway transferred to Europe. The same gentleman, a German, was also kind enough to take a few lines for you to Europe, which I hope you will have received safely. Although it was very difficult for me to write those lines at the time, I did not want to miss the good opportunity to give you my news from this wilderness. It is to say that I could not use my index finger because that morning the spine of a *Bactris* (palm) pierced deeply into the upper joint. As a result, it was very swollen, which caused me a lot of pain. Two days later, however, the finger was much better.

On the following day my fellow countryman left me early, and I quickly took an hour to collect some material in order to be able to examine it, as it looked as if it would rain hard all day. Indeed the rain soon drove me back to the apartment. When I got there, I found my companion walking around very unhappy and at a loss. I smelled and soon saw what had happened. Whilst Jäger, that was his name, was busy preparing a bird and was sitting less than an ell⁹⁰ away from the fire, he had not taken proper care of it until the housewife came from the other end of the hut and told him that there must be something on fire. Only then did he realize that the fire, which was too strong, flashed over to the plant presses and that some layers of each of them were fully alight. The precaution for my plant treasures left him in a quandary what to do; he could not allow them to keep burning but he also did not dare to extinguish the fire with water, since this might spoil them even more, but fortunately he immediately pulled the plant presses from the vicinity of the fire and they smouldered slowly by themselves; by sprinkling

⁹⁰ An ell is a measurement of about 50 cm, but now fallen out of use.

with a little water the fire was soon extinguished entirely. I removed the burnt paper and noticed to my relief that the damage had not been significant. I had already noticed earlier that my companion's olfactory organs were not in very good condition, but I never thought that he would not be able to detect burning blotting paper. Now it became clear to me why this person had the mania to taste everything, whereby he was of course very often profoundly tricked.

On the morning of May 16th, my companion woke me cursing before sunrise. I could already imagine that something very strange must have happened, but when I asked why he was making such noise, I got the not very pleasant answer: "the damned dogs have eaten half the meat." Correct, it was like that: an eight-pound piece of smoked meat, a significant treasure in that wilderness and which we had hung from the ceiling of the room in order to protect it from any kind of possible attack, was lying on the floor, and a crowd of hungry four-footers had their snouts into the deliciously prepared meal. A part of the meat had been luckily recovered. But inexplicably I could not work out how the flesh had been torn from the ceiling; but so it goes around here. What seems impossible to us is totally possible here. In any case, dogs and cats have been the initiators of this misfortune, and the cats had probably set the table for the dogs. Despite my bad mood, I could not refrain from laughing when my companion, who was constantly trying to match pieces of the twine, finally came out with a "that is how it happened."

As it was looking like it was going to rain soon again, I took a quick walk in the woods and came home with a beautiful bromeliad. On closer examination, for which I had a lot of time to do since it was raining again all day as if June 13th had already come,⁹¹ it turned out that it was a plant belonging to the genus *Ananassa* [*Ananas*]. It is a beautiful but otherwise inedible species, and much more splendid than the *Ananassa* [*Ananas*] *bracteata* Ldl.⁹² that is cultivated in European gardens; here it is used occasionally as a hedge plant, has seven feet high leaves that are strongly spined on the margins, and from the centre emerges a one foot high crown-shaped flower head, beset with burning red bracts. The flowers themselves are yellow-green and look very pretty between the brilliantly coloured bracts. On the same afternoon there was another thunderstorm, as it is rarely experienced at home; they are terribly gruesome here not only because the rain falls so enormously hard and such in bulk, but also because of the rapidly successive lightning followed by awesome thunder. Every thunderstorm reminds me of "the thunderstorm" in Quickborn.⁹³ The residents of the huts came together to pray each time, and all the saints were invoked. In the evening, I brought out a new stearin candle,⁹⁴ some of which I always had with me even on the shortest tour, and I asked the housewife for a fire to light it. She said it would be a beautiful light for the Church, and she would certainly have been very happy to have one, but my supplies did not allow me to give it away.

Early on the morning of the following day, May 17th, I went out with the son of my host, Jesús, in order to fall a splendid palm tree that had been seen for the first time on the previous day. It was found again in the forest and was soon cut down, and I am no longer as squeamish as I was at Izabal. I had already found young plants beforehand, but could not classify them according to their habits in any of the known genera. This time after I had cut off an inflorescence and I saw to my greatest

⁹¹ June 13th 1857 was the day on which it was speculated that a comet was to destroy the world. The story was perpetuated by many newspapers throughout the world just prior to that date. It is reported that the story originated in the *Leige Almanac* in Belgium in an article written by Matthew Laensberg.

⁹² A misidentification that is most likely to be *Aechmea magdalena* (André) André ex Baker. There are no known specimens made by Wendland of this bromeliad. In Costa Rica, this species was used as a hedge plant.

⁹³ *Quickborn* the book (not to be confused with Quickborn the town) by Klaus Groth was published in 1853.

⁹⁴ Stearin candles were made from vegetable or animal fats and oils, rather than the usual paraffin wax.

pleasure that it was a new genus.⁹⁵ On closer examination I found such distinct differences that it is impossible to include it within the next related genera *Geonomia* and *Manicaria*; already in the habit it deviates from the two aforementioned genera, but seems to come closer to the East Indian genus *Calyptrocalyx* Bl.⁹⁶

After a violent thunderstorm, which already broke out at noon, the sky cleared up and I went to the Sarapiquí again with Jesús. While I was botanizing, the latter fished so successfully that he stabbed a large carp-like fish of eleven pounds with a self-made harpoon. In the afternoons and evenings the housewife was busy pouring tallow candles; although I had never seen this manufacture before, I would have been pleased not to have gotten to know it, for the smell of the tallow almost drove me out of the hut. In the evening I discovered a nigua (sand flea) in the lower joint of the little finger; only the pain drew my attention to this intruder. Newly arrived Europeans in particular are often attacked in the most outrageous way by these insects; usually they eat their way into the feet, but often into every other part of the body, and I have met several people, chiefly ladies, who have suffered a lot from these animals. The nigua is a small, barely visible animal, which, however, quickly enlarges as soon as it has fed; when it has done this, it immediately lays eggs in the wound, which then quickly becomes infected. However, the entire nest can be easily removed with a pin.⁹⁷

On May 18th, another large palm was felled, an *Acrocomia*;⁹⁸ it was very prickly, and my companion had the misfortune of stabbing himself in the leg with a spine that caused him a lot of pain, especially since the wound became infected. When we got home again, Don Manuel had returned from La Virgen,⁹⁹ where he had gone for a few days to do business. He had brought his family fruits of the Poma rosa (rose apple, *Jambosa vulgaris* or *Eugenia jambos*) [*Syzygium jambos* (L.) Alston].¹⁰⁰ Since I had never tasted this fruit before, I was of the opinion that the name Poma rosa was related to the reddish colour of the fruit; but that is not so, the name refers to the taste of the fruit, which really, as strange as it may sound, tastes exactly like a moss rose smells; but I prefer the scent of the moss over the taste of the fruit. In general, to this day I still cannot give the tropical fruits the attention that other tropical visitors award them, and in my opinion our fruits, for example, a good pear, a Reine de Claude, a good peach, a Madeleine blanche, make every match with the local fruits. The only fruits that I appreciate here and that have more flavour than the ones grown at home are oranges, pineapples, and bananas. Oranges, you can buy twelve for two gilders in San José, and more towards the coast they have no value at all. On the subject of the pineapple, I very much doubt that with all the care we can give it we will never attain the aroma that it has here. In San José the fruits are expensive because they are brought there from the coast, though they are still cheap compared to Europe, as for a beautiful pineapple of about 2–3 pounds one pays about two gilders, while one on the Pacific coast of Guatemala and Salvador you can buy twelve beautiful large fruits for the same price. The banana, however, is the pinnacle of all tropical fruits; completely ripe and roasted on the fire with the skin on or boiled, or sliced and roasted, for me it is the most beautiful of all delicacies, also enjoyed raw it has the most wonderful taste.

A sudden scream from the chickens in the yard caught the attention of the hut dwellers. The call “a snake, a snake!” drove us out of the hut

⁹⁵ *Welfia* H. Wendl. The type collection of *Welfia georgii* H. Wendl. ex André was collected at this time (GOET025880).

⁹⁶ *Welfia* and *Calyptrocalyx* Blume are superficially similar with both genera having the flowers in triads set in deepish pits.

⁹⁷ Jiggers (*Tunga penetrans*) represented a serious problem in rural areas. They lived in corrals and, taking advantage of the fact that people were barefoot, the fertilized female introduced herself under the skin of people. There, she becomes gravid and forms a large protuberance, sometimes the size of a pea; it causes a lot of pain.

⁹⁸ Wendland is talking about *Astrocaryum* G. Mey. not *Acrocomia* Mart., which is restricted in Costa Rica to dry areas in the Pacific lowlands. At least one collection of *Astrocaryum* was made by Wendland around this time (K000526400).

⁹⁹ La Virgen was the closest settlement to Muelle, except for the existence of a single hut at Rancho Quemado (near the actual town of Chilamate), which disappeared when the road to Sarapiquí was partially reoriented, by the end of 1853. Today, Puerto Viejo is the closest town to Muelle.

¹⁰⁰ Most likely “manzana de agua”, *Syzygium malaccense* (L.) Merr. & L.M. Perry.

like lightening, and everyone hurriedly armed themselves as best they could; I grabbed my companion's sabre which was the closest thing to me, and went to the battlefield. When the first of us approached, it had fled into an orange bush nearby. A long search was made before it was found, as its green skin was camouflaged by the similar green of the orange bush; at last Don Manuel discovered it sitting up in the bush and he gave it a fatal strike; it was three to four feet long, green on the back and whitish under the belly [lora or parrot snake, *Leptophis* spp.]. A few minutes later it was in the spirit bottle.

One of the greatest plagues that one has to endure here when one suddenly descends from the colder region into the warmer one is the breakout of heat rash on the upper and lower extremities. We, my companion and I, suffered severely from it, and it took a lot of discipline not to scratch ourselves, since scratching the swellings is often said to cause them to become inflamed. But darn it, not to scratch when it itches! At least I have often done it with the greatest pleasure and without causing bad consequences.

On May 19th we went to the forest again early; an *Iriartea* was cut down. This genus has two species which, as large specimens, can be very easily distinguished by their external shape.¹⁰¹ The people here know the two species very well and know how to convey the most striking differences to the questioner; the one they call the sweet, the other the bitter, because the former has a sweet heart of palm, but the other is bitter in all its parts. It was difficult for me, especially at the beginning, to distinguish the young plants of the two species, and accordingly often confused them, whereas the natives were never mistaken. The one that was cut down today was the sweet one, whose trunk was over 100 feet high but with a diameter of only 9–11 inches, but by far it could not be counted as one of the highest [*Iriartea deltoidea* Ruiz & Pav.]. Its supporting roots descended over ten feet from the trunk; they are of extraordinary hardness, so that when they were cut off forcibly, the very sharpest axe often rebounded with force leaving only a slight scar. The trunk is also very hard in the outer circumference, where the cast-iron-like bundles of vessels lie close together, but it becomes very spongy in the middle and is there filled with a fluffy substance. Once the axe has been driven into the soft inner part of the trunk it can be worked on much, and the weight of the crown easily causes the palm to fall. I was very surprised by the size of the leaves, which I had not thought of as that large; the leaf sheath alone measured over six feet in length. Don Manuel, who had gone with me to cut the palm, peeled off the lower leaf sheath that almost completely surrounded him. He also assured me at the same time that he would often sleep in such a sheath if he had to stay in the forest at night. The inflorescence, which is still compacted and enclosed in the bracts before it is fully developed, is arched and bent backward so far that its tip touches the stem; since it is also bulbous in the middle, it takes on the appearance of a huge horn, which characterizes the already peculiar-looking plant even more, especially where it stands in a meadow or somewhere in the open and stands out against the horizon.

No sooner was the work of felling the trees finished when the sky opened all its locks and it did not stop raining for most of the day. In such weather it really is no pleasure to sit in a simple hut in the jungle, especially when you see that you cannot get any further with what you have collected; on the contrary, everything begins to rot and go mouldy.

¹⁰¹ *Iriartea deltoidea* Ruiz & Pav. is the only species in the genus in Costa Rica. The species was very common along Wendland's route, together with the superficially similar *Socratea exorrhiza* (Mart.)

H. Wendl., which Wendland clearly accepted as a second species of *Iriartea*. Wendland's "sweet" *Iriartea* is *I. deltoidea*, while his "bitter" *Iriartea* is *Socratea exorrhiza*.

You can hardly get the paper dry, and it is fortunate that there are no bank notes here, otherwise they would rot in the pockets.

In the afternoon I also had a fight with the big cockroaches, the so-called Cucaracha,¹⁰² which were in large mass in the house; they had found a cosy and warm hideout between the large inflorescences of the palms that had been pressed in the last few days; everything was teeming with these animals that spoil a lot of things with their great voracity and on top of that they leave a terrible smell behind. Although they do not bite people, it is not a pleasant feeling when they run with their long legs over one's face at night, and if you are able to crush one of the large ones whose whole body forms a greasy mass that is held together by a little glue, which rarely happens because they are extremely nimble, the evil has been made even greater since the smell of the crushed animal is almost unbearable.

The whole hut, which fortunately is very airy, is polluted by these animals, especially in the kitchen or wherever food is kept. No suitcase or box can be tight enough to keep them out; they sniff around everywhere, namely they love sugar, indeed all sweets, which is why such things must be kept in glass jars with good stoppers. Their pungent smell adheres to all plates, pots, and cups when they are not used for a long time, so that one would often lose one's appetite if nature did not demand its rights. I also openly admit that I only eat here to live, not live to eat, which the local food products, like vegetables and meat, do not encourage, and I often have wished to get sour cabbage or buttermilk, which I usually disdain. Imagine beef cut into thin strips and dried in the sun, and which hardly any healthy teeth are able to successfully bite into after it has been cooked, the tortillas made of corn, the black beans, and all that day after day. But three cheers for the sour-sweet bananas, the sour sweets, as my companion says. The next night I thought I had ants in my bed; on closer inspection it turned out that the tormentors were not ants, but fleas [*Pulex irritans*].

On May 20th the weather was no better than the day before; the rain began early, so that I hardly found time to cut down another large palm, the bitter *Iriartea* mentioned above [*Socratea exorrhiza* (Mart.) H. Wendl.]. Although the temperature here during the day did not rise above 20–22° R [25–27° C] and fell down to 17° [21° C] at night, everything began to grow mouldy with the persistent humidity, and even more on this day than on the previous one. It is therefore not surprising that this warm weather has a great influence on the animal world; everything that bears the name frog screams, roars, and moans incessantly, and in doing so expresses its complacency in the loudest possible way. A beast, which sat under a large pile of wood close to the house and was probably a toad,¹⁰³ made a sound from time to time which reminded one of a good blow of a hammer on an iron rail, one could imagine being near a train station or a large machine factory.

Just as nature has produced everything here on a larger scale and in the greatest splendour, it has also not ignored the frog family and often combined colours and shapes in them that reveal an unusual luxuriosness and could certainly serve as a model for pattern makers at calico factories. These fellows, some of whom are as tall as a righteous beer mug, can leap several elles. But if the toads are so large, the toadstools do not give in to them and are set up for comfort far and wide, like all types of mushrooms, whether they grow on the ground or on trees, can be found here in astonishing abundance and wonderful size. I would

¹⁰² Wendland probably was familiar with the German cockroach (*Blatella germanica*), which is small, but not with the much larger *Periplaneta* spp., which are common in Costa Rica.

¹⁰³ Some travelers through the Sarapiquí region used to be astonished by the loud scream of the "rana ternero" or Smoky jungle frog (*Leptodactylus savagei*), a giant species, but its noise is not like the one described by Wendland.

have liked to have brought some of these beautiful things from the animal world in spirit to our museum, but since I did not have sufficiently large glasses of spirit with me, I had to refrain from doing so, and our museum must be satisfied with a few smaller things. In general, I have now realized the great difficulty in collecting several subjects of natural science at the same time, and have therefore almost entirely put it aside, since botany alone is sufficient to focus on. Although I went out with the best intention in the world to collect a lot for our museum, it was here that I first got to know the difficulties associated with such activities. Nobody who has not been in the tropics and, moreover, in similar regions such as this, can correctly understand the thousands of drudgeries involved in collecting, regardless of the subject of natural science. I had heard and read all of this before, but you think about it differently in imagination than when in reality.

Ascension Day, May 21st, started out beautifully; the morning was bright and I did as much as was possible. Immediately after noon, however, the torrential rain returned in masses and in the evening, there was a rather quite strong thunderstorm. Whenever there was a strong thunderstorm, the inhabitants of the hut came together for prayer, where they lingered until the greatest part of the thunderstorm was over. The men hit their chests so hard that I could hear it in my adjoining room. The male residents had gone out to hunt in the morning and returned home in the afternoon with some prey, which consisted of a howler monkey [*Alouatta palliatta*] and a hokko chicken (a type of wild turkey), which, unfortunately, had been made unfit for stuffing by cutting off its feet and head.

In the evening, when the light was on and I was busy and sipping a cup of mocha, a scorpion with a large cockroach fell down right in front of me. It was a life-and-death struggle, to which I spent a short time with joy being highly fascinated by the skill of the latter animal captivated me to a high degree. Each time the scorpion tried to set its deadly sting, its prey lifted its hard wings and managed very skilfully to defend itself. As soon as I had sufficiently satisfied my curiosity, the former went into the alcohol bottle.

The next morning, May 22nd, after a breakfast of monkey meat, which I did not really like, I set out from San Miguel for La Virgen, a settlement at a somewhat lower altitude. My companion could not go with me because of his inflamed leg, which still had the palm spine embedded, and therefore he took care of what remained to be dried. So I rode off alone with Jesús, the son of my landlord, at 8 o'clock and reached La Virgen, my goal for today, when the rain began. La Virgen is a settlement that consists of two huts that belong to as many owners, and consequently amounts to one hut and one owner less than San Miguel. The way there from San Miguel was initially always uphill or downhill, later the terrain became more flat; as a result of the heavy rain the road had become very bad and the animals often ran the risk of getting stuck in the muck.

Shortly before La Virgen, when I came out of the forest to a meadow, on the opposite edge of the forest I saw one of the most beautiful plants I have ever seen, in splendid bloom. As soon as I saw it, I remembered the tireless collector Mr. von Warszewicz and I hurried there and recognized the plant than that gentleman had discovered first, and which I had known until then only from the description; it was *Warszewiczia pulcherrima*.¹⁰⁴ That gentleman, whose name could not be immortal-

¹⁰⁴ *Warszewiczia pulcherrima* Klotzsch [= *Warszewiczia coccinea* (Vahl) Klotzsch]. Wendland appears to have returned with living plants that were later reported to be grown in Herrenhausen (ANON., 1857a: 640) although the long-term fate of the plants is not known.

ized by a more beautiful plant, asked me in writing before I left home to look for this magnificent plant near San Miguel, where he had found it. However, this information is probably based on an error, since I looked for the plant there in vain, and had roamed the surrounding area in all possible directions. One involuntarily stops in front of such a magnificent plant in admiration; one does not know whether one may dare to pluck a panicle, a leaf or a branch and thus to rob nature of its most beautiful ornament. But such thoughts, which come to you so suddenly, are quickly rejected, and soon you have a large bundle in your hands and rejoice in the robbery. The plant is a worthy side piece to the long-known *Euphorbia pulcherrima*, which anyone who has seen this plant in the tropics must declare to be the ultimate in splendor. Hopefully I will be able to bring living plants to Herrenhausen, which would be all the more desirable since the plant has not yet been introduced into European gardens. *Warszewiczia pulcherrima*, a *Euphorbiaceae*,¹⁰⁵ is a tree 50 feet high with 1.5 feet long fresh green, oblong and opposite leaves, has a branched 1–3 feet long, loose flower spike at the end of each branch, the flowers of which are supported by bright red, long-stalked bracts. What recommends the plant even more for our greenhouses is the fact that it flowers already as a small plant 8–12 feet high.

We set up our night quarters in a very clean new hut, where I would have liked to stay for a few days if the owner had not incidentally slaughtered an ox a few days beforehand, the meat of which had been cut into thin, inch-long strips and hung out to dry and so the air was polluted with the most disgusting foul smell. The heavy rain and damp weather added to the problem of trying to dry the meat out quickly.

The morning of May 23rd woke me up with rain, and afterwards I had the prospect of having to stay in La Virgen. However, since the weather cleared up around 9 o'clock, I quickly decided to move on to another settlement called Pedregal. The path was incredibly bad, and the rain was pouring down again, and the many branches hanging in the path did their best to get us thoroughly wet. In addition, one had to ride very carefully and pay close attention to the thin tree trunks, always hewn from the earth at a height of 1.5–2 feet, between which the path constantly winds in the thickest jungle, so that the leg or the foot is not pinched; but one often forgets that and is then severely punished for carelessness.

After a five-hour ride I reached Pedregal, the hacienda of a North American, and there I was kindly received by the owner [William Hogan], his brother [James Hogan] is a respected doctor in San José and who had given me a letter of recommendation to him.¹⁰⁶ The day before, the owner had come up the river (Sarapiquí) from San Juan del Norte and had brought along a compatriot and his wife who also intended to settle here. Due to the heavy rain and the high water levels, they had taken nine days to get from the coast to Muelle, a settlement further east and a former customs post, which is only one and a half hours away from here; when we arrived they were busy unpacking the suitcases and boxes and drying and sorting their stuff, much of which was spoiled and therefore thrown into the nearby stream.

May 24th, a Sunday, was splendid and clear, it lured me into the forest, from where I returned richly laden. Everywhere was found the beautiful *Trithrinax aculeata*¹⁰⁷, a palm, unfortunately without fruits and flowers. At noon the owner invited me to take a walk with him and

¹⁰⁵ *Warszewiczia pulcherrima* (*W. coccinea*) is in the *Rubiaceae*, not in the *Euphorbiaceae*, and is a misprint or misidentification. There are no known specimens of *W. pulcherrima* collected by Wendland.

¹⁰⁶ Pedregal means a rocky place. It does not exist anymore as a toponym. This location was a cacao hacienda near Muelle, in front of which huge rocks precluded further navigation upstream on Sarapiquí River.

¹⁰⁷ *Cryosophila warszewiczii* (H. Wendl.) Bartlett is the only species in the genus in the Sarapiquí region and therefore the only one to be encountered by Wendland. There are no known surviving specimens collected by Wendland from Costa Rica.

his compatriot through the cleared part of the hacienda, which I gladly accepted and carried with me my constant companion, the vasculum. Soon one plant drew me to the edge of the forest and soon another one into the forest, where my companions followed me with pleasure. A dog that had been taken along found the track of a fox [grayfox, *Urocyon cinereoargenteus*] and soon took after it, but it escaped. In the chasing of it, we accidentally walked in a circle, which was not noticed by my companions, and since I noticed the indecision of the owner of the hacienda as to which way he had to take to get out of the forest. I said the direction to go was to the right after he indicated to walk in the opposite direction. “No Sir, I know my ground very well, we must go to the left” was the answer, and a “yes, I think also” from his compatriot strengthened his insistence. A German cannot argue against two Yankees, I also thought that I might have been wrong anyway, and followed the two.

We went on and on and did not come out; we soon came to a footpath, but it disappeared into the forest; instead of searching for it again and returning on it, a different direction was taken. So it continued for some time, up hill, down hill, through streams and thickets, until finally nobody knew where to go and where we had come from. The sky was covered with thick clouds, so that the sun could not be seen, and since the compass was left at home, we no longer knew where south or north was. Now the owner thought he knew the terrain, and yet another direction was taken; after a long march we were one and a half hours later in the same place as before. We shouted loudly but there was no response. Since it was already 3 o’clock and it was starting to rain a bit, after we had looked at each other in silence for a while as if one wanted to ask the other: “where are we going now?”, we once again went in a new direction and we pursued it hurriedly. The rain gradually got stronger, soon one stumbled, then the other, then one ended sitting in the swamp, then another somewhere else, and the unpleasantness of the situation drove the sweat out of the body even more than our strenuous running alone did. As long as there was room in the vasculum I kept collecting, but that too had to stop. It was already 5 o’clock when we came to a small stream, where we had five minutes to rest, since each of us was feeling a bit exhausted. One was already half-giving oneself to the thought of having to spend the night in the jungle, without food, without cover, without fire, and then where would you go next morning was also the question. The owner suggested following the brook, which could possibly flow into the Sarapiquí and perhaps would cross the path to Muelle. No sooner said than done; the brook was followed in all its turns, sometimes it went through swamps, sometimes we waded in the brook itself, sometimes through bamboo bushes, over fallen trees, then one of us went ahead with the machete and made the way, then the other. No words were spoken, and it gradually began to get darker, which spurred us on to hurry more and more. Again a few short minutes of rest were needed, because we were drained to almost complete exhaustion from hunger, exertion, and excitement. Everyone now had time to think about it and to imagine all the horrors and unpleasant consequences of an involuntary night in the forest; we were even lacking fire because the kindling could not catch, and the flints had gotten wet in the pockets. During this rest I saw one of the most beautiful ferns I had ever met with; a *Trichomanes*¹⁰⁸ with shimmering emerald green leaves lay at my feet and a beautiful white

¹⁰⁸ *Trichomanes elegans* Rich. is common throughout the region. There are no known specimens collected by Wendland of this species.

amaryllid (belonging to the onion family) bloomed near the stream.¹⁰⁹ The plants in the vasculum were squeezed together again, and as much as possible of the former was put in; the latter brought to my mind a friend at Hanover, whom I would have loved to have with me on my trip, but unfortunately the vasculum was overfilled and the plant had to be left behind.

After everyone had recovered a bit, we went forward again, and when it began to get seriously dark, the path to Muelle, that was greeted with loud screams of joy, saved us. From here we still had half an hour back to the hacienda, where signal shots were fired, because those who stayed behind had no doubts as to what had happened to us. At 7 o'clock we arrived at the hacienda, dead tired, the midday meal, which had been held ready since 3 o'clock, was quickly eaten and then laid down to rest, which we were all very needy of. However, I shall not soon forget that afternoon; it showed me what caution is needed to be exercised on similar excursions, but such incidents usually only happen when one is least prepared for them.

As Pedregal was the goal of my excursion, I wanted to return to San Miguel on the following day, May 25th, but because the animals had run away early in the morning and they had to be caught again – I felt compelled to stay there. I had the path from the previous day, where I had seen the beautiful amaryllid, was too fresh in my memory, so I did not want to go there; instead I decided to do a tour directly to the Sarapiquí, on which occasion I found some nice things. The afternoon was also without rain like the morning and therefore allowed me to go into the forest again. When I returned, I met remnants of the great Walker's army at the hacienda, who had voluntarily started their march from San José to San Juan del Norte. There was a German, a native of Baden, among them who had to abandon his fatherland in 1849, but longed to return and regretted having got involved with the uprisings of that time.¹¹⁰

On May 26th, at 8 am, I left the hacienda and arrived at La Virgen at around 1 pm. Today I rode along the path there, which had seemed so horrible to me a few days earlier, with greatest pleasure and in glorious sunshine. I collected here and there, now plants for the herbarium, now seeds, and enjoyed the wonderful nature. Actually my intention had been to stay in La Virgen; but since the weather was so splendid, I persuaded Jesús to return to San Miguel on the same day, which at first he had absolutely no inclination to do by saying that it could still rain today, but it did not look like it to me at all. But he gave in to my ideas; something was eaten quickly and we soon set off.

On the first stretch that had to be ridden, the path was often overgrown by prickly, trailing plants, namely bamboo, and it was often necessary to be very careful to wind your way through it undamaged. An incident occurred there that could easily have turned out badly for me. I rode down the side of the path close to the bushes, because the path was drier there, and came to a somewhat clearer but swampy place. There was a bamboo branch in the way, and I took my hand and knocked it aside. The moment I struck the blow, I felt a cold sensation on my wrist, and the thought of "a snake" immediately crossed my mind, especially since I had heard something fall next to me. Right, that was it. The snake must have been sitting along the tip of the overhanging branch, waiting for prey, and was thrown to the ground numbed by the blow that I fortunately had given rather powerfully. Jesús had

¹⁰⁹ *Crinum erubescens* Aiton often grows along streams and is native to the Sarapiquí region. There are no known specimens collected by Wendland of this species.

¹¹⁰ He refers to the previously mentioned Revolution of 1848.

seen it fall and was quickly at hand to finish it off, whereupon it was temporarily put in a sack and later placed in a bottle of spirit.

We had covered half the way to San Miguel, when thunder spurred us on to greater haste. Meanwhile the thunderstorm was approaching, the thunder became more powerful the longer it lasted, the appearance of the sky more threatening with every minute. When I was about half an hour away from San Miguel, I saw that the rain was about to start, I spurred my mule on and rode towards my goal as fast as the bad roads allowed. Soon it started to rain a little and soon after a terrible storm came rushing in with heavy rain. There was no protection, one just had to go through it; every moment you heard the crash of falling trees, and I paid more attention to them than to the path. In the distance of two rifle shots there was the hut of Don Manuel's neighbour; the mules suddenly turned off towards it, and since I had not taken proper attention to the way I thought was the correct one, but I soon realized my error. Nevertheless, I dismounted at the hut to seek shelter from the storm. I had hardly reached there and had just pulled the mule under the roof when the hurricane broke with full force and in an instant untiled half of the roof of the hut, which was swaying to and fro. I found the inhabitants in prayer; but when the roof blew away, one of them grabbed this saint, the other another saint, and the landlord took the cross from the wall and held it up in the direction from which the storm was coming.

The main thrust seemed to be over and I was totally wet through anyway as it seemed more dangerous inside the hut than outdoors, I remounted to head towards my old quarters. I quickly rode through a section of the forest and an already very swollen stream before I arrived in an open area, and there the rain was pounding so hard that I suspected it also contained hail, which however was not the case. Almost every half a minute there were lightning strikes on my right, then on my left, followed by horrifying thunder, which literally stunned me.

My mule did not want to continue and was constantly trying to turn around to return to the shelter we had just left. Only with the greatest effort could it be driven forward until suddenly it saw the old quarters and was encouraged to hurry. Since Jesús had arrived with the pack animal shortly before, because he rode past me while I was on the way to the other hut where I found shelter, everybody was very worried about me, and I was therefore welcomed in the kindest way by Don Miguel and his spouse. I was wet, soaking wet, only a few dry threads were found on my underclothes; I have never been any wetter, but I have never been outside in such weather before. A thorough rubbing of the whole body with spirits and a nice cup of coffee with cognac, which I asked for at once, may have averted the bad consequences of such a soaking.

The morning of May 27th was partly spent washing and drying my belongings, and the paper had to be changed, plants had to be pressed and seeds sorted, etc. In a package of dry plants, which I had not handled for a few days but which had been put out in the sun every day to dry, I found, to my astonishment, a large colony of ants complete with a pile of soil and a considerable number of so-called ant eggs [tropical fire ant, *Solenopsis geminata*]. At noon two gentlemen, a woman and two children arrived here to travel on to San Juan del Norte; they had come to the country three years ago and now wanted to move to North America to earn a living there; too little was to be earned in Costa Rica,

they said, everything was too expensive and they could not get used to the constant diet of tortillas and beans.¹¹¹

Towards evening I shot a large green macaw [*Ara ambigua*] that was near the hut. I had stalked them before, but without success. These birds look magnificent in the open air, they constantly fly in pairs, scream incessantly and always sit close together in the tallest trees. This time they perched lower down, and so I had a lucky shot, even though the height from which I shot it down might well be over 100 feet. I intend to bring the bird's hide to Hanover.

On the following two days we had heavy rain, so that there was not much work to be done outside; but since my belongings were to some extent dry, and my companion's leg had also improved a lot, everything was packed towards the evening of the second day and prepared for departure for the following day. For lunch on that one day, which I should not fail to mention, we had the meat of an opossum [*Didelphis marsupialis*] and a bouillon soup from the macaw that had been killed the day before; both tasted excellent.

Although it was my intention to leave very early on May 30th, we did not leave until 8 o'clock, because these people here can never be ready at the right time and have to do this and that. At last, however, the preparations for the departure were completed; the family, with whom one had become more familiar during the longer stay, was bid a warm farewell, and off we went to San José. The path to the above-mentioned Cuesta del Congo was soon covered, but in terrible dirt, and the only task left to do was to do the climb without incident. A short stop was made to let the animals refresh a little, and to check the saddlery if everything was firm and in order, then it went uphill. At first it seemed pretty good, but toward the summit the animals had to work very hard, not only because of the steep incline, but also because of the clay soil which had been softened by the rain that has recently fallen, and from which they could only free themselves with the greatest effort. In order to give some relief at least to my saddled animal, I dismounted, and therefore was satisfied to find some quite pretty terrestrial orchids while climbing up.¹¹² The descent on the other side went a little better, and also the path itself was better. According to the people, the small stream that we crossed here is said to contain gold, which is why my two drivers collected a handful of sand from the stream to wash it out later. Something was found that looked like gold, but hardly was gold.

We experienced fine weather for the first half of the way; but then it began raining again, so that the path, which went through swampy terrain, seemed bottomless and it often seemed to me as if the animals were swimming in the mud. The guides made a practical application of the leaves of a *Colocasia*, which they used as raincoats, and thus protected at least the greater part of their body from the rain. Around noon we reached Cariblanco's single hut, where we made ourselves as comfortable as was possible. In the afternoon, when the rain had subsided a bit, I went for a short walk where I shot three of the prettiest birds I have ever seen.

May 31st, the feast of Pentecost, made for a very dreary face, and nothing, neither in nature nor in the surroundings of the house, was there anything that could put the heart in a Pentecostal mood. Neither beautiful horn music nor the ringing of the bells woke me from my slumber, unless I counted the cock-a-doodle-do of the roosters as a replacement of the former and the roar of the howler monkeys for the

¹¹¹ Very likely, they were some of the thirty-three persons who planned becoming settlers of the German colony in Angostura, Turrialba. They arrived at San Juan del Norte on the brig *Antoinette*, in December, 1853, along with Hoffmann, von Frantz and Carmiol (HILJE, 2020).

¹¹² *Malaxis simillima* (Rchb. f.) Kuntze and *M. wercklei* (Schltr.) Ames were collected around this time.

latter. What a difference there is between a Pentecost morning here and in Germany! What an almost complete silence, interrupted only now and then by the droning or screaming of this or that animal in the distance exists in this landscape, how little lively singers can be heard in the bush and forest, how permanently monotonous and ordinary are the jungle and the nature in the long run! Almost never, or at least only imperceptibly, there is a change in the vegetation, despite all the diversity there is always the same foliage in the forest, the same tones in the landscape, the same monotony everywhere, the same people with boring faces and the same donkeys. How very different is a Pentecost morning in Germany! What life and bustle in the city, forest and field! How happy are the people, how happy is nature! What singing, what twittering, what amusement among the feathered inhabitants of the forest! What wonderful green the forest is adorned, how refreshing and invigorating is the air! For all the grandeur and splendour that the tropical forest possesses, I would hardly prefer it to the simplicity and freshness of a beech or oak forest. The German may be happy that he has a winter, a very cold, dreary winter with foot-high snow; for spring follows a glorious Pentecost morning, a newborn nature, a divine happiness. Under such contemplation I jumped out of my hammock and looked out into the forest, then had a quick coffee, packed my donkey, and goaded the guides to hurry up; because today a good distance had to be covered.

At 7 o'clock everything was ready to leave, we set out on the march, and we went pretty quickly. Splendid plants, magnificent flowers were seen, and every now and then the Cilgaro [jilguero, *Myadestes melanops*] (a small but never-to-be-seen singer, to whom Mr. Wagner gives significant praise in his travel description of Costa Rica) rang out its pure but unpleasantly sharp voice.

At 10 o'clock we had breakfast at the Río de la Paz [Río La Paz] and what had been collected up to then was pressed. Shortly before 11 o'clock we continued, and the rain that soon set in did not stop until we were thoroughly soaked, around 3 o'clock in the afternoon shortly before our arrival at the height of Desengaño. I could no longer move my fingers because of the wetness and cold, since the warmer region was now behind us; my whole body had become stiff, which is why I had to take my radical remedy, the cognac bottle, the last one I still had with me. I put some of its contents in every boot and a little more behind my collar so that it dripped down on to the back. This is a very simple and very excellent means of protecting yourself from a cold on such tours when you are in wet clothes. A large number of different species of hummingbirds, which seemed to be playing with each other, buzzed around up here, looking for food from the many flowering plants of *Siphocampylos* that grew along the way. The little things looked most charming in the open air, and I watched them for a while with complete attention as they can be very amusing. Their flight is extremely fast, fast as an arrow they dash from bush to bush, from flower to flower, seldom one sees them resting, they take their nourishment from the flowers whilst in flight. Only in the moments when they are buzzing in front of a flower, they must and can be shot. I shot several of them after I handed my riding animal over to the driver and walked to the forest edge by foot. I was very pleased to be able to collect some of them in a condition in which they were still fit for stuffing. One may shoot these little animals only from a great distance and with fine buckshot, even

at the risk of not hitting them several times. If you shoot them from too close, you will often only find the head or the legs, and which will not be enough for them to be recognized.

A feeling of comfort comes over one as soon as the highest point has been passed and your eye can linger on the friendly high-plateau of Costa Rica, paved with sugar cane fields and adorned with refreshing greenery. At 5 o'clock we arrived at today's destination, a small, very high-altitude hut, which was only inhabited by a nine-year-old boy with his two dogs, as his parents were visiting neighbouring Alajuela. After I had refreshed myself with some food and a warm cup of coffee, had sorted the things I had collected and smoked my last cigar, I went to my hammock.

We started early on June 1st, for San José which I wanted to reach on the same day and, where possible, before the rain. In the first few hours of riding down the mountains there was still botanizing and therefore many delays, but afterwards it went all the faster. I trotted at moderate speed through Barva, then Heredia, in which town I arrived at 12 o'clock sharp, and I immediately heard the distant thunder that was a signal for the rain that would soon begin. The approaching thunderstorm drove us to the greatest hurry; the animals had to run as fast as they could and so I happily reached San José again at 1 o'clock just at the moment that the thunderstorm broke out with a tremendous downpour, from which I was quite soaked before I could reach my apartment.

My room, which had not been aired out for almost four weeks, had become mouldy in the true sense of the word; everything, including the walls and the other objects that were in the room, were thickly covered with finger-high mould. In a circle of dear acquaintances and compatriots I enjoyed the convenience of being among educated people again, chatted with them about the experiences I had and the yield obtained, and reminisced with them about the German homeland. That I was back in the realm of civilization became conspicuously and annoyingly clear to me after I went to my night camp through the screams of the night watchman of San José, who let out his *Viva Costa Rica* etc. in a terrible voice, which he shouted every hour everywhere. Like me, the German chain dog of my German neighbour did not seem to like this shout, because every time it sounded, the dog let out a terrible howl. But what was less melodic, the howling of the dog or the screaming of the night watchmen is difficult to say, but I think the prize belongs to the *Viva Costa Rica* of the local night watchmen.

