"Eugenies resa". Localities, dates and labels of the insects collected during the voyage around the world by the Swedish frigate "Eugenie" in the years 1851–1853

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During my time as one of the keepers in the entomological department of the Swedish Museum of Natural History (Riksmuseum), Stockholm, I have received several questions concerning the material collected during the voyage of the frigate "Eugenie". I think that it would be useful to publish the information that I have obtained concerning the voyage and the insect collection.

Historical and general notes

In 1851 the frigate "Eugenie", belonging to the Swedish navy, was fitted out for a voyage around the world. She was a sailing ship armed with 40 guns, and with a crew of 40 officers and 300 men. The captain was C. A. Virgin. The main object of the voyage was to control and protect Swedish commercial connections, and to try to establish new ones. The Royal Swedish Academy of Science was asked to send a few naturalists on the voyage. Dr. J. G. M. Kinberg was selected as zoologist, and he was also the senior physician on board. Dr. N. J. Andersson, who subsequently became professor of botany at the Riksmuseum, joined the expedition as botanist, and Mr. K. J. Johansson and Lieutenant C. Skogman were in charge of the nautical, meteorological and astronomical observations. Lieutenant Skogman was one of the officer staff on board.

The scientific results of the voyage were published by the Royal Swedish Academy of Science in "Kongliga Svenska fregatten Eugenies resa omkring jorden . . . åren 1851—1853 . . . Vetenskapliga iakttagelser . . . utgifna af K. Svenska Vetenskapsakademien", printed in Stockholm. It has usually been referred to in the literature simply as "Eugenies resa". This work consists of three volumes: I, Botanik; II, Zoologi; III, Fysik.

Volume I, Botany. Only the floras of the Galapagos Islands and of the

area of Guayaguil are recorded here.

Volume II, Zoology. This is the main volume, and Part I, Insecta, is dominant here. Most of the insect collection was worked up and the new species (no others were published) were described as follows: C. H. Boheman (1858—1859), Coleoptera (455 n.spp.); C. Stål (1859), Hemiptera (239 n.ssp.); C. Stål

(1860), Orthoptera (114 n.ssp.); H. D. J. Wallengren (1861), Lepidoptera (81 n.spp.); A. E. Holmgren (1868), Hymenoptera (103 n.spp.); C. G. Thomson (1868), Diptera (319 n.spp.). In Part 2, Arachnider, T. Thorell (1868) and posthumously (1910) treated the Araneae. The 1868 edition was not complete, and apparently was not distributed commercially. It was reprinted in 1910 with the addition of two pages which also contain an index of species. About 30 species are recorded in this paper but more than half of them are from collections and localities other than those of the "Eugenie's" voyage. Only a few new species are described. In Part 3, Annulater, J. G. M. Kinberg (1857) and posthumously (1910) treated the Annelids. No other animal groups are dealt with in this work though the collections were considerable, but some may have been published elsewhere.

Volume III, Physics. Nautical, meteorological, magnetic and astronomical observations are recorded here.

Only the insect collection will be dealt with here and, like the collections of the other groups, it is preserved in the Riksmuseum, Stockholm. All the insects are considered to be collected by Dr. Kinberg, but he probably cooperated with the botanist, Dr. Andersson. It is also known that the chaplain of the ship, S. B. Pontén, was interested in natural history and that he also collected at least plants.

The labelling of the specimens is very poor, and so are the locality data given in the publications. Some of the localities given in the text and on the labels are apparently wrong, but in at least one case the errors can be explained (see below under Hawaii — California). Some of the locality names are very vague (e.g. China, Brasilia) or are now no longer in use (e.g. Insula Ascension, Insula Rossi). At the end of the paper I have given an alphabetical list of these localities, with cross-references to their correct versions or locations. With reference to specimens which are considered to be mislabelled, it should be borne in mind that most of the harbours visited were frequently visited by merchant vessels, and in this way exotic species could have been brought ashore by chance and found there by the collectors.

In general the labels are printed, but in a few cases they are hand-written. The name of the collector Kinberg is given on a separate label, "Kinb.". It should be borne in mind that only new species from this collection were published and that all specimens, determined or undetermined, bearing any of the locality labels noted below and with the collector's label "Kinb.", are to be referred to the collection made on this voyage.

Two accounts of the voyage were published in the years following the return home. The one was written by Lieutenant C. Skogman: Fregatten Eugenies resa omkring jorden 1851—1853. — Stockholm, 1854 (part 1) and 1855 (part 2). The other was written by the botanist N. J. Andersson: En verldsomsegling skildrad av N. J. Andersson. — Stockholm, 1853 (part 1) and 1854 (parts 2 and 3). In these works, correct data are given about the course of the frigate, the places visited and the dates of these visits. In addition, I have found in the archives of the department two lists compiled by C. H. Boheman, who was then the head of the department, giving the dates and localities of the collection. From one of these lists, it is evident that every locality originally had a number which corresponded to relatively detailed data concerning the localities and dates. This list however only goes up to January 1852, and in the second list the numbers and dates of the collection

are amalgamated and referred to less detailed locality names. Unfortunately, none of these numbers has been attached to the specimens, and so they are of no particular assistance.

In the following pages I shall follow the voyage chronologically, giving the modern names of the localities, the dates of the visits, the corresponding names given in the papers mentioned above, and the data on the labels. Where I have found notes about general excursions or data on the trips of the naturalists in the books by Skogman and Andersson, these are related. Naturally they are more detailed in Andersson's book, but it should be noted that this author very seldom mentions Dr. Kinberg as his companion on the excursions. This may mean that the two biologists only occasionally followed the same path, which is quite understandable as we know that Dr. Kinberg was also interested in marine invertebrates. However I am recording briefly what Andersson relates about his excursions as I think that it can be taken for granted that a biologist of the time could hardly have avoided collecting a great number of insects too.

A map of the course of the "Eugenie", redrawn from Skogman, is given (Fig. 1).

The voyage, dates and localities

"Eugenie" left the naval port of Karlskrona in S. E. Sweden on the 30th September 1851. A storm forced her to take shelter in the harbour of Farsund on the south coast of Norway on the 8th October. It was only on the 17th that the sails could be hoisted again, and Portsmouth was reached on the 25th October. The equipment and food supply were replenished here. With the departure from Portsmouth on the 4th November, the real voyage began and from this time onwards we have regular records of insects from the ports-of-call.

Madeira. 12—14.XI.1851.—Locality in text: Madera.—Label: Madera. Notes: "We got ready for an excursion and went ashore (at Funchal) in two parties, the zoologist's party and mine" (Andersson, I, p. 36). "During the two and a half days here I made excursions from the town to the opposite side . . . I would have been glad to reach the highest regions, but time did not permit this and I had to remain in the gores and hills of the relatively lower parts" (Andersson, I, p. 39). It can also be assumed that Kinberg and his party made excursions towards the interior of the island.

Rio de Janeiro, Brazil. 12—21.XII.1851. — Locality in text: Rio Janeiro; Brasilia (Rio Janeiro); Brasilia. — Labels: Rio Jan.; Brasil. Notes: Excursions were made to Botafogo, Mt. Corcovado, and the botanical garden. Dr. Andersson also made tours to "Porto d'Estrella", on the north coast of the bay of Rio de Janeiro, and to "Praya Grande", situated "opposite Rio, on the other side of the naval port" (Andersson, I, p. 77). Some insects from Brazil were purchased in Rio de Janeiro, and some were presented by a Swedish resident in Montevideo, a Dr. Michaelsson. It is possible that some of the specimens labelled "Brasil" originate from these collections and may not be from the immediate vicinity of Rio de Janeiro.

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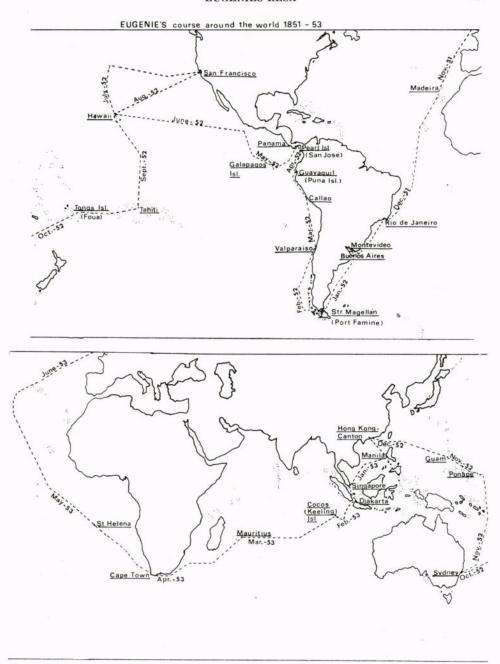


Fig. 1. "Eugenie's" course around the world 1851—1853. Redrawn from Skogman.

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Montevideo, Uruguay. 29.XII.1851 -- 2.I.1852. Colonia-Montevideo. 13—16.I.1852. — Locality in text: Montevideo. — Label: Montevideo. Note: Excursions were made in the vicinity of Colonia and to the Cerro hill at Montevideo.

Buenos Aires, Argentina. 4—12.I.1852. — Locality in text: Buenos Ayres. — Label: Buen. Ayr. Note: A tour was made to the residence of the governor-general Rosas at Palermo.

Strait of Magellan, Chile. 31.I—9.II.1852. — Locality in text: Patagonia; Patagonia (Port Famine). — Label: Patagonia. Notes: The frigate anchored at Port Famine, about 50 km south of Punta Arenas, from 31st January to 2nd February. "Dr. Kinberg and Dr. Andersson made an excursion to Mt. Tarn, 3000 feet high. They returned without having reached its peak, but made considerable collections of naturalia" (Skogman, I, p. 98). — York Bay, Bachelor River, on the west part of the Brunswick Peninsula, was visited from 8th to 9th February.

Valparaiso, Chile. 23.II—5.III.1852. — Locality in text: Valparaiso. — Labels: Valparaiso; Chili. — Note: Andersson mentions excursions in the district, especially up into the hills.

Callao — Lima, Peru. 15—18.III.1852. — Locality in text: Callao; Peruvia (Callao); Peruvia. — Label: Callao. — Note: Excursions were made to Lima, and in the vicinity of Callao itself, particularly to the island of San Lorenzo.

Puna, Ecuador, island in the Bay of Guayaquil. 27.III—4.IV.1852. — Locality in text: Insula Puna; Insula Puna in Guayaquil; Guayaquil. — Labels: Puna; Guayaquil. — Note: After one day on Puna, Dr. Andersson went to Guayaquil where he than stayed until the 4th April when the frigate departed (Andersson, I, pp. 206—218). At one point (p. 215) he mentions that Dr. Kinberg accompained him, but it is not clear if he did so all the time. Excursions were made to the surroundings of the town and as very few specimens are labelled "Guayaquil" I think that many insects labelled as "Puna" were actually collected in or around Guayaquil.

Panama, the town. 16—20.IV.1852. — Locality in text: Panama. — Label: Panama. — Note: "Two days of excursions in the vicinity of Panama" (Andersson, I, p. 225).

San José, Pearl Islands, Panama. 22—28.IV.1852. — Locality in text: Insula St. Joseph. — Label: J. St. Joseph. — Note: Excursions along some small brooks towards the interior of the island (Andersson, II, p. 3).

Galapagos Islands. 11—20.V.1852. — Locality in text: Insulae Galapagos; Insulae Galapagensis. — Label: Ins. Gallop. — Notes: The general plan was to travel from San José directly to San Francisco, but for the sake of the naturalists this detour was made. Here Kinberg and

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Andersson explored together all the time. The different islands were visited as follows: Chatham, 11—12; Charles, 15—17; Indefatigable, 18; Albemarle, 19; James, 20. "In the evening of the 19th May Dr. Kinberg and Dr. Andersson arrived at James Bay and brought many different natural history specimens" (Skogman, I, p. 179).

Honolulu, Oahu, Hawaiian Islands. 22.VI—2.VII.1852 and 25—26.VIII. 1852. — Locality in text: Honolulu; Insula Oahu (Honolulu). — Label: Honolulu. — Notes: Excursions were made to the surroundings of Honolulu, especially to the Nuuanu Valley. Andersson (II, pp. 53—65) relates further tours and hardships in the mountains and valleys of the island. According to Skogman and Andersson, the only harbour visited was Honolulu. However, in Boheman's list one more locality is recorded from the Hawaiian Islands, "Sausal Bay". This is probably Sausalito Bay at San Francisco, and it is my opinion that Boheman misinterpreted the locality and labelled at least some of the specimens from this locality "Honolulu" instead of "California" (see below under San Francisco). Specimens mislabelled in this way are known to occur.

San Francisco, California, U.S.A. 29.VII — 9.VIII.1852. — Locality in text: San Francisco; California (San Francisco); California;. — Label: California. — Notes: From 29th July to 5th August, "Eugenie" lay at anchor outside the small town of Sausalito (Sausalito Bay) in the San Francisco Bay, to the north of San Francisco. During this stay necessary repairs were carried out, and the naturalists and officers made excursions and hunting trips into the surrounding countryside. (See also above, under Honolulu, note). "In the early days many trips were made to the nearby and more distant hills" (Andersson, II, p. 100). From 5th to 9 th August, the town of San Francisco was visited. Andersson (II, pp. 121—180) relates an excursion he made to Sacramento by boat, and from there by stagecoach to the gold-mining regions around Coloma on the southernmost of the three streams which together form the American River. This is a very detailed account in places, but Kinberg's name is never mentioned and it can thus be assumed that he did not join the trip. It is likely that Andersson collected insects in addition to plants.

Tahiti, Society Islands. 14—20.IX.1852. — Locality in text: Insula Taiti; Taiti. — Label: Taiti. — Notes: The island of Eumeo was also visited, but only for a few hours. During its stay the frigate lay at anchor in the harbour of Papeete. "I engaged a kanaka as carrier for my supply of paper and started for the centre of the mountain system of the island, accompanied by my three usual and loyal companions from the crew" (Andersson, II, p. 210).

Fou a, Tonga Islands. 2.X.1852. — Locality in text: Foua. Labels: Foua Ins. Foua (handwritten). — Note: During the short stay it was raining.

Sydney, Australia. 21—30.X.1852. — Locality in text: Sidney; Nova Hollandia (Sidney); Nova Hollandia. — Labels: Sidney; Nov. Holl. —

Notes: The Museum of Natural History was visited and "Dr. Kinberg received specimens of several Australian animal species by exchange" (Skogman, II, p. 41). This collection may also have contained some insects and thus it is possible that some specimens labelled "Nov. Holl." originate from parts of Australia other than Sydney. Andersson (III, pp. 13—23) tells of a trip he made to the town of Wollongong in the Illawara district, about 70 miles south of Sydney.

Ponapé, Caroline Islands. 22.XI.1852. — Locality in text: Insula Pouynipet: Pouvnipet inter Carolinensis; Insula Ascension. — Label: Ins. Ascens. - Notes: According to Skogman (II, pp. 38 and 52), this island was called Pouynipet or Ascension. The latter name is not used for this island in modern maps and encyclopedias, and it should not be confused with the island of Ascension in the south Atlantic. This was not visited during the voyage, but only passed near by. This confusion has probably taken place several times (and no wonder!), and may have contributed to the reputation of the collection for being frequently mislabelled. "At 8 in the morning of the 22nd, the frigate anchored to the east of the island and the two quarter-boats were prepared for a shore-trip with the captain, some of the officers and the scientists . . . At sunset the boats and all their passengers were on board again" (Skogman, II, pp. 52 and 58). "We walked along the foreshore . . . each man occupied with his own pleasures and affairs, hunting, collecting plants or animals, trading with the natives, and so on . . ." (Andersson, III, p. 78). Prior to this, Andersson (p. 74) writes that he made a half-day trip to another of the Caroline Islands, the small Duperrey or Wellington Island.

Guam, Marianas Islands. 27—28.XI.1852. — Locality in text: Guam. — Label: Guam. — Notes: Excursions were made in the vicinity of the harbour of Umata. Andersson (III, pp. 92—95) relates a tour he made to the interior part of the island. He notes that "there was a great scarcity of insects" and that he reached "the highest peak of the island."

Hong Kong — Canton, China. 8—29.XII.1852. — Locality in text: China; China (Wampoa); China (Hongkong). — Labels: China; Hongkong (a few, handwritten). — Notes: "At 8 a.m. on 8th December we passed through Bocca Tigris into the river. For a long time the water had been muddy, but now it had the consistency of thick beer . . . At 10 a.m. we anchored to the east of Tiger Island . . . A small boat was sent ashore with the naturalists and some of the officers. They returned after a couple of hours . . ." (Skogman, II, p. 71). Bambootown, 9th December. Wampoa, 9—23.XII. From here excursions were made to Canton, but only along the shore as it was impossible to get through the town to reach the mountains behind. "Besides the narrow space bordered by a wall surrounding all the factories, no other parts of the town apart from the so-called China-streets and their cross-roads can be visited by foreigners" (Skogman, II. p. 89). Hong Kong, 26—29.XII.

Manila, Luzon, Philippine Islands. 4—14.I.1853. — Locality in text: Manilla. — Label: Manilla. — Note: According to Andersson (III, pp. 191—211), the biologists made an excursion up the river Pasing to the Entomol. Ts. Arg. 92. H. 3-4, 1971

shores of the great lagoon. "... from Santa Cruz Dr. Kinberg took the road westwards to Los Baños — we made our way towards the mountains ..." (p. 201).

Singapore, Malay peninsula. 26—30.I.1853. — Locality in text: Malacca; Malacca (Singapore); Singapore. — Labels: Malacca; Singapore (a few, handwritten). — Note: During the whole stay, Dr. Andersson was ill and was not able to leave the ship (Andersson, III, p. 214—215).

Djakarta — Buitenzorg, Java. 5—12.II.1853. — Locality in text: Java; Java ad Bataviam. — Label: Java. — Notes: The governor-general invited the captain and some of the officers to his residence at Buitenzorg, about 50 km south of Djakarta. As the residence was under repair, the guests were quartered in the nearby Bellevue inn. "We met at Belle Vue two of our companions from the ship who had travelled here a few days in advance on scientific business" (Skogman, II, p. 161). Andersson (III, p. 220) ff) mentions that he was invited to the country residence of a merchant, Mr. Büsing, to recuperate from his illness. He regrets that he was unable to join the tour to Buitenzorg.

Cocos Islands (Keeling Islands), in the Indian Ocean, west of Indonesia. 24—25.II.1853. — Locality in text: Insulae Keeling; Insulae Rossii; Insulae Rossi. — Labels: J. Keeling; Ins. Ross. — Note: At this time the Cocos Islands were called Keeling Islands after a Captain Keeling who discovered them in 1609. The name Ross Island(s) used here is taken from a man by the name of Ross who settled on the islands in 1826 and ran a coconut mill there. So far as I know this name is not used anywhere except in the papers on "Eugenies resa".

Mauritius. 14—16.III.1853. — Locality in text: Mauritius. — Label: Mauritius. — Notes: A tour was made to the peak of the mountain "la Pouce". Andersson (III, pp. 270—274) gives an account of the excursions he made: the first day over the mountain ridge above the town of Port Louis to a large plain in the centre of the island, the next day to the mountain "la Pouce", and the third day to the botanical garden seven miles north of Port Louis.

Cape Town, South Africa. 10—19.IV.1853. — Locality in text: Promontorium Bonae Spei; Promont. Bonae Spei; Caput Bonae Spei. — Label: Cap B. Sp. — Notes: Excursions were made in the vicinity of Cape Town. "A tour to the peak of the Table Mountain was cancelled because of the cloudy weather" (Skogman, II, p. 190). "During this time I tried to acquaint myself with the marvels of Cape Town, walked through the nearby mountains, made trips to Stellenbosch, Simonstown, Constantia and the surrounding areas, and spent some days at Mariedale (Rondebosch) in the home of our excellent consul Mr. Letterstedt" (Andersson, III, p. 291). Andersson also relates that at last there was a fine day when he could ascend to the plateau of Table Mountain (p. 317).

St. Helena, island in the South Atlantic. 2—4.V.1853. — Locality in text: Insula Sancte Helenae; St. Helena. — Label: St. Helena. — Notes: Naturally

the former home of the Emperor Napoleon was visited, as was his tomb which had been empty now for twelve years. "I visited Jamestown, made a pilgrimage to Napoleon's prison and tomb, explored several of the deep inner valleys, climbed the high mountain peaks in the centre of the island and walked through the east and west tablelands" (Andersson, III, p. 333).

With the departure from St. Helena, records of the insects end and no harbour was visited until "Eugenie" reached Plymouth on 8th June 1853. The stay here lasted until 12th June; Cherbourg was visited from 13th to 16th June. The frigate anchored at Gothenburg on 25th June and in the evening of the 4th July 1853 at Stockholm. "As at Gothenburg, "Eugenie's" captain and officers were overjoyed at a flattering reception. Officers and scientists were invited to the most splendid dinners by members of the Royal Academy of Science and of the Merchant Society of Stockholm. The non-commissioned officers and the crew were also remembered, and they had a jolly night in Tivoli. This night was, however, fatal for one member of the crew who, when returning on board, reeled through a hatch and fell to the lower deck. Next day in the hospital he finished his voyage around the world" (Skogman, II, p. 205).

"Eugenie" left Stockholm on the 14th and was again in Karlskrona on 18th July 1853. Here the voyage came to its definite conclusion.

Alphabetical list of the localities mentioned in the text and of the labels which may need explanation

Ascension, Ins(ula): see Ponapé, Caroline Islands. Brasilia: see Rio de Janeiro. California: see San Francisco. Cap(ut) B(onae) Sp(ei): se Cape Town. Chili: see Valparaiso. China: see Hong Kong — Canton. Foua: see Foua, Tonga Islands. Java: see Djakarta — Buitenzorg. Keeling, Ins(ulae): see Cocos Islands. Malacca: see Singapore. Nov(a) Holl(andia): see Sydney. Patagonia: see Strait of Magellan. Peruvia: see Callao - Lima. Pouvnipet: see Ponapé, Caroline Islands. Promont(orium) Bonae Spei: see Cape Town. Puna, (Insula): see Puna, Ecuador. Ross(ii), Ins(ulae): see Cocos Islands. St. Joseph, I(nsula): see San José, Panama.