

The Linnean Anders Sparrman as traveller and collector in South Africa

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Anders Sparrman (1748–1820), a disciple of Carl Linnaeus, travelled to Canton in China with a Swedish East India Company ship 1765–1767. In 1772 he set out to South Africa and joined in Cape Town Captain Cook's second expedition around the world 1772–1775. After his return to the Cape Province, he collected further natural history items during 1775–1776. Most important are his collections of mammals and insects, and his descriptions of a number of big mammals.

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Introduction

The symposium volume by Broberg et al. (2012) describes many aspects of Anders Sparrman's multifarious life and work, but one not much treated in that book is his zoological and botanical collections, in particular the ones from Africa. In addition, as that volume is in Swedish, a brief presentation of Sparrman in English may be worthwhile. These have previously been presented by Jonsell (1982) and in the summaries of Broberg et al. (2012), pp. 267–276).

Anders Sparrman (1748–1820) is one of the more fascinating among Carl Linnaeus' disciples. The fact that he was one of the two Linnean circumnavigators (the other was Daniel Solander, 1735–1782) gives his career a special nimbus. His early years in the province of Uppland as the son of a vicar were followed by studies at the Uppsala Academy, which was

a common pattern among the Linnaeans. But decisive for his destiny was a neighbour in his home parish, Carl Gustaf Ekeberg (1716–1784), a captain in the Swedish East India Company, who twelve times made the voyage from Swedish Gothenburgh to Chinese Canton, and also had deep knowledge of natural history. He developed close connections with, and became a member of, the Swedish Royal Academy of Sciences (referred to here as “the Academy”), which was anxious to get collections from the Far East.

Only 17 years old, Sparrman departed for China under the command of Ekeberg. He probably travelled as an assistant to him, and collected diverse natural history items, not the least being butterflies. After his return he presented a disputation thesis *pro exercitio* (as exercise) under the title *Iter in Chinam* (Sparrman 1768).

The explorer

We now approach the main topic of this paper, which is not to survey Sparrman's life and work in general, but to say something about his natural history collections. In 1819, Gustaf von Paykull (1757–1826) donated his very rich zoological collection to the state (Löwegren 1952). The Swedish Natural History Museum in Stockholm was then founded, based upon that donation and the previous collections of the Academy, among which Sparrman's was among the most important. Sparrman's collections are zoological and botanical in the broadest sense, and also ethnographical.

Sparrman's collections emanate mainly from what was called the South Sea (including New Zealand), but most substantially from South Africa, mainly the Cape Province. In the South Sea they were collected between 1772 and 1775, in South Africa in April 1772, but mostly after his return from the circumnavigation on 21st of March 1775. In Cape Town, the collections from the remarkable voyage were divided among the naturalists on board: besides Sparrman, the father and son Germans Johann Reinhold (1729–1798) and Georg Forster (1754–1794) (Jönsson 2012). The Forsters' part went to London, where they both settled down for a number of years to work up the collections in the circle of Joseph Banks (1743–1820) at the British Museum. Sparrman's part — with pressed plants, insects, skulls and horns of mammals, skins of birds, fishes and much more — was dispatched to Stockholm at the expense of the Academy.

Sparrman remained in the Cape Province until April 1776, when he returned to Stockholm. In July 1775 he started on an 8-month expedition together with Daniel Immelman (1756–1800), a man from Cape Town who had accompanied Carl Peter Thunberg (1743–1828) on his first journey in the Cape Province, and a few “hottentots” (khoikhoi, San people). This trip took him towards the east and north through what is now known as Western Cape, a then virgin and game-rich country. His route

was mainly fairly close to the coast, to the Great Fish River, then along that river inland for about 100 km northwards, and finally back roughly the same way.

The zoologist

Sparrman discovered some bigger mammals, in particular antelopes, from the Cape province, and gave detailed descriptions of a number of mammals previously known only from skulls, skeletons or skins. Sparrman based his descriptions on live and dead animals in nature, sometimes in a rotting stage in the hot sunshine. Also, the behaviour of animals was depicted with sharp eyes. His work was critical to the leading 18th century zoologists Georges-Louis Leclerc de Buffon, Thomas Pennant, and in particular Jean-Nicolas-Sébastien Allamand. Sparrman was a keen and competent observer, and gave both precise and lively narratives of the situation in the field.

In the *Acta* of the Academy, Sparrman published between 1777 and 1780 about 10 papers, each devoted to a mammal observed in the Cape province. For the Bushbuck *Tragelaphus sylvaticus* (Sparrman 1780a) and the African Buffalo *Syncerus caffer* (Sparrman 1779b) it is the first description ever. He greatly amended the descriptions of Honey Badger*, Black Rhinoceros *Diceros bicornis* (Linnaeus, 1758), Hippopotamus *amphibius* Linnaeus, 1758, Gnu *Connochaetes gnou* (Zimmerman, 1780), Hartebeest *Alcelaphus buselaphus* (Pallas, 1766), Cape Eland *Taurotragus oryx* (Pallas, 1766; fig. 4) and Springbok *Antidorcas marsupialis* (Zimmerman, 1780) (Sparrman 1777b, 1778b, 1778c, 1779a, 1779c, 1779d and 1780b, respectively).

Those were his great years as an academic biologist (cf. Jonsell 2012; Grandin 2012). That was also reflected in his lecture before the Academy (Sparrman 1778a) on the need for further scientific research in the Pacific. At this time he apparently still felt enthusiasm after the successful voyage, and was probably met with interest and respect. But rather soon this faded,



Fig. 1–3. Sparrman collections at the Swedish Museum of Natural History, Stockholm.

1. *Gyrus alba*
2. *Phalacrocorax capensis*
3. Stuffed young *Hippopotamus amphibius* caught by Sparrman in 1775.

although scattered papers in natural history appeared into the 1790s, but then mostly on Swedish topics; as Wästberg (2008) has put it: “in his lectures and demonstrations his words fell more and more like withered leaves and fewer and fewer listened”.

I will quote some examples from papers he had published in those *Acta* (translated from the original Swedish). The first one relates to the springbock (Sparrman 1780b, pp. 275–277):

“Certainly the most beautiful of all the gazelles I saw in Africa. It was also the most common, as in some places it appeared in greater number than all the others together ... I cannot conceal my wonder that Mammalia, this main branch of the principal realm of Nature which includes Man himself, should be to us so little known, and yet by us so little studied .. Those gazelles should be tamed to the benefit of Man and be grazed on those places, where now they graze as prey for the Lion, for which they are like their flocks of sheep, according to the Hottentotts’ expression.”

This quotation shows three characteristic features of Sparrman’s style: a subjective observation, a utilistic view upon Nature, and an example from the natives.

Another quotation relates an encounter with a hippopotamus (Sparrman 1778c, pp. 332):

“At night they always blow and smell and sniff about themselves on both sides, in order to by means of their fine smell notice if some danger is about, and sometimes as well let sound their grunting before they dare to ascend ashore. In that conviction I had, with an African yeoman and his son, at night, sat down to wait upon hippos, which we hoped might ascend there. But against our expectation, the animal rushed at once out of the water and was quite close to us, when probably more the fire from a musket, than the effect from the bullet, made the creature throw itself back in the water with a violent scream. Else we had all become trampled underfoot and massacred. It is believed that a swift-footed Hottentott can barely outrun a hippo.”

A third quotation relates the discovery of a new insect, *Cimex paradoxus*, in the desert about 250 hours journey from Cape Town (Sparrman 1777c, pp. 235–236).

“I had at noon on a hot day taken shelter in a shrub, because of the sun’s unbearable heat; the air was still, aspen leaves would here be immobile, when I noticed a pale and shrivelled leaf move from its place; I ran to the spot, and hardly believed my eyes when I saw it was a living creature. My companion, Mr D. Immelman, took part in my joy and wonder, and agreed with me that this was among the most curious works from God’s finger ... We regarded that creature’s shape, and could not too scrupulously praise the Creator’s Providence, which in their construction and colour had given them the property of being concealed and unknown to their pursuers.”

Comments to Sparrman’s list

In the Department of Zoology at the Swedish Museum of Natural History in Stockholm, there is a list (Table 1), made by Sparrman and apparently sent as a letter to the secretary of the Academy Pehr Wargentin (1717–1783), that enumerates in a summary way the collections he delivered to the Academy. There is also a copy by Bengt Bergius (1723–1784) in the archives at the Academy. The letter is obviously written after Sparrman’s return to Stockholm in 1776, but probably before he was appointed curator of the Academy’s collections in 1777, because of the phrase “Herbs and insects in a considerable number, so far unknown, those not properly arranged”.

Among birds extant in the collections is the tern *Sterna alba* (Sparrman 1786; now *Gyrus alba*), of unclear origin, possibly from the south Atlantic (Fig. 1). Another example is the cormorant *Pelicanus capensis* (Sparrman 1788; now *Phalacrocorax capensis*), from False Bay not far east of the Cape of Good Hope (Fig. 2). Both were, at least for some time, part of a collection kept by the President

List of natural items from the South Sea, Caput Bonae Spei, the Caffer and Hottentott Lands collected during a 5-year and at his own expence performed voyage by Anders Sparrman Med. Doctor.

Herbs and insects to a considerable number, still unknown, those not yet properly arranged.

Fishes, Birds, Serpents, many kinds from the Cape and the South Sea preserved in Spiritu vini.

Stuffed birds from New Zealand, Otaheite (Tahiti), Cape, etc.

Horns of Rhinoceros, a new species of Buffalo, the Kudu, the Bushbock, the Eland.

Teeth of Hippopotamus or the Big Sea-Cow, the whole number. From the Elephant the molar tooth only.

Cranium from Rhinoceros. Penis of Rhinoceros of a particular shape preserved in spiritu vini. Rhinoceros vertebra of neck.

Animal skins of Hippopotamus, its calf [Fig. 3]; unknown animal, half horse half ox; the Rhinoceros; the Wildebeest and its calf; the Hartebeest; the Eland; the Springbock; the Lion; the Long-haired Bear; the Kuddu Calf; the Tiger; the Wild Striped Foal stuffed; the South Pole Seal D:o D:o; the Zebra; the Honey Eater; the Jackal.

Skins of the Ostrich, Penguins, Pelicanes, the Magellan Goose.

Dresses, axes, tools, arrows, saws, spears, &s, &s from New Zealand, the South Seas, the Hottentotts, the Caffers, Madagascar, Ceylon etc&c.

Table 1. Sparrman’s list at the Swedish Museum of Natural History in Stockholm (translated from Swedish).

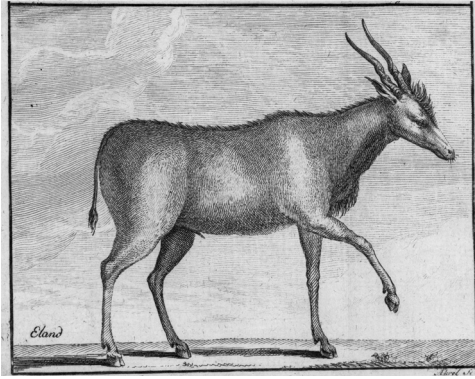


Fig. 4. The Cape Eland *Taurotragus oryx*. Copper engraving by F. Akrel after a drawing by Sparrman (Sparrman 1779d).

of the Court of Appeal, Gustaf von Carlson, at his estate Mälby in the Swedish province of Södermanland. The tern was depicted for *Museum Carlsonianum*, a work with colour plates in four volumes, which von Carlson produced. (Sparrman 1786–89).

The wild striped foal in Table 1 is the Quagga *Equus quagga quagga* (Boddaert, 1785), extinct since 1878, but in Sparrman's days not uncommon in Southern Africa. The specimen brought home by Sparrman is today on display in the Swedish Museum of Natural History.

Only parts of the collection were originally offered to the Academy; and Sparrman kept important parts for himself. Löwegren (1952, p. 365) notes that in about 1815 Sparrman sold his insects to Gustaf von Paykull for 1,000 RdrBco (riksdaler banco), whose zoological collections in 1819 became the foundation of the Swedish Museum of Natural History. Before that, other items were given to the Academy on various occasions, apparently without being formally registered.

Botanical descriptions

Compared with his zoological achievements, Sparrman was less eminent as a botanical collector and describer, although he mastered fully the Linnaean competence and method.

There has been some discussion about the attribution of the collections from the Pacific voyage, whether they should be to the Forsters or to Sparrman (Nicolson & Fosberg 2003; Jönsson 2012), which does not concern us here. The Cape plants were gathered by Sparrman in October 1772 and from July 1775 to April 1776. The majority of Sparrman's collections are in the Swedish Museum of Natural History in Stockholm. Some material are in the Linnean Society of London, at the universities of Lund and Uppsala, and in a few other places (Staffleu & Cowan 1985).

Sparrman only described three new plant species from Africa — Thunberg had carefully collected in those areas before him and Sparrman was, in any case, more dedicated to animals. The three new species were: *Ekebergia capensis* Sparrman (1779e), *Protea sceptrum-gustafianum* Sparrman (1777a), and *Sarcophyte sanguinea* Sparrman (1776). The first one is a tall tree in the family Meliaceae, which grew 180 hours' journey northeast of the Cape. It was named in honour of Carl Gustaf Ekeberg, Sparrman's patron and mentor. The second one, named in honour of Sweden's King Gustav III, is now called *Paranomus sceptrum-gustavianus* (Sparrman) Hylander, in the Proteaceae. The third one is a parasite upon roots of *Acacia*, with an amorphous stem and without leaves. It belongs in the family Balanophoraceae.

Ethnographica

Finally, it should be mentioned that Sparrman also brought home a substantial collection of ethnographica, both from the South Sea and South Africa, now in the Museum of Ethnography in Stockholm, once administered by the Academy of Sciences. Many of the items are described and some are depicted in his travel account, as well as mentioned in the list he sent to Wargentin. The South African collection was described in detail by the South African ethnographers Rudner & Rudner (1957).

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* Note added in proof:

For the Honey Badger, the name *Mellivora capensis* (Schreber, 1776), has priority over *Viverra ratel* Sparrman, 1777. In the travel account, Sparrman further described Aardwolf *Viverra cristata* (1783: 581; now *Proteles cristata*). Neither of them is today considered to belong in the family Viverridae.