

SUPPLEMENT TO THE SOUTH KANARA
DISTRICT MANUAL, VOLUME I, BY
J. STURROCK, I.C.S., 1894.

CHAPTER I.

GENERAL DESCRIPTION OF THE DISTRICT.

VOL. I.
CHAP. I.
Latitude and
longitude.
Subdivisions.

*Page 1, paragraph 4, first sentence.—Substitute:—*It lies between $12^{\circ} 04' 08''$ and $13^{\circ} 58' 52''$ north latitude and $74^{\circ} 35' 00''$ and $75^{\circ} 40' 07''$ east longitude.*

*Page 2, last paragraph and page 3, first paragraph.—Substitute:—*For administrative purposes South Kanara was divided at first into five taluks of Coondapoor, Udipi, Mangalore (inclusive of the Amindivi islands), Kásaragód and Uppinangadi. In 1910 a new taluk with headquarters at Múdabidri was constituted comprising in it 68 villages of Mangalore and 41 villages of Uppinangadi taluks, the latter forming the Beltangadi tract. This arrangement was upset two years later when a new taluk called Kárkal was formed with 63 villages of Mangalore and 42 villages of Udipi taluk. In 1927, the Uppinangadi taluk was named Puttúr taluk, after its headquarters. The taluks are further divided into máganés (or collections of villages) and these again into grámas or villages of which there were 800 in the district in 1931 besides eight towns with a population of over 5,000 inhabitants. Table I at the head of this volume gives the names of the taluks, their areas, the number of towns and villages and occupied houses in them, the total population of the taluks in 1901, 1911, 1921 and 1931, the percentage of variation at the censuses in these years and the density of population in 1921 and 1931. The Amindivi islands included in the revenue subdivision of Mangalore have a total area of three square miles and four villages, 918 houses and a population of 5,302 (in 1931).

Roads

*Page 15, paragraph 1.—Add:—*For a fuller description of the means of communication see notes under Chapter VII of Volume II entitled Communications at page 257 of this volume.

Forests.

Page 15.—Add after paragraph 1 the following:—

In all parts of the world where primitive cultivators found forests which they could cut down and burn, snatching a crop

* The small difference in Longitude and Latitude is due to the revision of the boundaries of the district.

or two from a clearing before abandoning it to repeat the process elsewhere, shifting cultivation has greatly changed the character of forest vegetation, where it has not destroyed it entirely. South Kanara is no exception. The earliest "*kumari*" cultivators must have found the country clothed with dense forest, predominantly evergreen, from the ghats to the sea. The re-growth which sprang up on their abandoned clearings, unlike the virgin evergreen, was inflammable; and the cumulative effect of *kumari* and fire has been to produce a more and more deciduous type of forest. With the development of settled cultivation in the valleys a new destructive factor came into play in the lopping of leaves to manure the paddy fields. These influences, with grazing, have reduced the forest vegetation in the coastal region, and for varying distances inland, to the thin grass and hacked scrub which sparsely cover the eroded laterite hillocks of the "plains." On the ghat slopes and foothills and in some outlying localities the pressure of population has been less severe, and good high forest remains. But even here most of the forest is a secondary growth, deciduous or semi-deciduous in type, and rather immature, dating from *kumari* cultivation within the past century. The protection given since by forest settlements has had its effect, and a definite tendency to revert to a more evergreen type is noticeable in many places.

Page 16.—For the last four lines *substitute*:—in 1894 it was recorded that "it is impossible to derive any revenue worth speaking of from the timber within a marketable distance of the coast, which now receives supplies of timber from the private forests of Malabar at cheaper rates than timber can be procured from the"

Page 17, paragraph 1, line 9.—After the full-stop, *insert* the following sentence:—The rate of destruction was accelerated by an influx of Mahráttas from above the ghats following the prohibition of "*kumari*" in Mysore.

Add the following paragraphs after paragraph 1:—But the prohibition was not very strictly enforced, and 25 years later "*kumari*" was still being practised at Parappa. In 1898 the forest authorities found it necessary to take more active steps, and limited areas were allotted to hill tribes for "*kumari*" cultivation combined with the raising of crops of teak. This endured until 1915 and its results are seen in the scattered patches of teak among the re-growth on old "*kumari*" on the slopes to the south of the Paiswáni river. Recently the system has been revived under much closer supervision, and with very encouraging initial results.

These are not the first attempts to grow teak in Kanara. Inspired by the success of the Nilambúr plantations Dr. Cleghorn in 1860 determined to imitate them at Parappa and elsewhere along the Paiswáni river. But despite a certain superficial similarity it was soon realized that conditions in Kanara were much less favourable, and a few years later further planting was stopped. There is, however, reason to suppose that teak of moderate quality, though not of the best, can be grown in Kanara, provided due care is given to the selection of the site.

Paragraph 2.—Delete 8 lines at bottom and the first four lines on page 18 and *substitute* the following:—This cleared the ground for forest settlement, which went on steadily during the eighties and nineties of the nineteenth and the first decade of the present century. With the recent settlement of a few blocks of minor importance in the southern part of the division, forest reservation may now be considered complete. There are some 389 square miles of reserved forest lying mainly on the slopes and at the foot of the ghats and outlying hills, with a few unimportant reserves nearer the coast.

Page 18, paragraph 2.—*Substitute*:—As regards his forest needs the Kanara ryot is in an exceedingly fortunate position, compared with most others. Almost all waste land, of which there are everywhere great extents, is covered with forest of some sort, and here he is free to graze his cattle, cut timber and fuel (other than certain specified trees) for domestic purposes and—a privilege exercised on an immense scale—to cut green leaf manure for his rice cultivation. In addition, in the “100 yard *Kumaki*” lands referred to above, in which some degree of conservancy has been exercised by the holder, he is allowed to fell timber of all classes for his own use, and even greater proprietary rights over *kumakis* are often conceded in practice, though the legal basis for this is obscure. Not content with this, agitation against the forest rules led in 1924 to the grant of concessions for leaf collection from reserves. These have been gravely abused and the present position is that the Government have agreed to the principle of their gradual withdrawal.

In 1916 the district was split into two forest divisions, North and South.

The years immediately following the War were marked here, as elsewhere, by a burst of special activity. Its principal manifestation was the establishment between 1920 and 1927 of very successful underplantings of *Hopea parviflora*, under Mr. Tireman's¹ direction, over an area of several thousand acres.

¹ Mr. H. Tireman, C.I.E., was Chief Conservator of Forests, Madras, from 1923 to 1927.

A saw-mill installed at Parappa in 1927 was less successful. It failed to pay; and after sawing (among other timber) the teak from Dr. Cleghorn's plantations of the eighteen-sixties, it was closed down and sold in 1929.

The completion in 1931 of a Working Plan brings the Southern division for the first time under systematic management.

The principal timber trees of the division are *Hopea parviflora* (Kiralboghi), *Terminalia tomentosa* (Banapu), *Xylia xylocarpa* (Tirwa), *Artocarpus hirsuta* (wild jack, hebbalsu), *Terminalia paniculata* (Marwa), *Lagestroemia lanceolata* (Benteak), teak and rosewood. Large numbers of *Hopea* sleepers have been supplied to the South Indian Railway in recent years, and logs of the other timbers mentioned are brought out annually in moderate quantities to supply the rather sluggish local markets at Mangalore and Kásaragód. Unfortunately the principal rivers, though used for floating the timber, are not ideal for the purpose.

In the scrubby coastal areas, mainly in unreserves, sandalwood occurs in limited quantities. The revenue from this source is a substantial item in the annual budget. The district is rich in minor products. There are cardamoms and pepper, both wild and cultivated; canes, largely exported to Europe; cashewnuts, in which a brisk trade has recently grown up with America; nux vomica, cinnamon and ginger; and wood-oil from *Hardwickia Binata* and *Dipterocarpus indicus*.

Page 19.—For the second sentence and the table that follows, substitute:—The following is a revised list of reserved trees:—

Serial number.	Botanical name.	English name.	Kanarese name.
1	<i>Tectona grandis</i>	Teak	Saguvani.
2	<i>Santalum album</i>	Sandal	Gandha.
3	<i>Dalbergia latifolia</i>	Blackwood	Biti.
4	<i>Pterocarpus Marsupium</i>	Kino	Bengha.
5	<i>Terminalia Chebula</i>	Myrabolam galnut.	or Anile or Harde.
6	<i>Tamarindus indica</i>	Tamarind	Hunase.
7	<i>Basia longifolia</i> and <i>latifolia</i> ... ..	... ..	Ippe.
8	<i>Mangifera indica</i>	Mango	Mavu.
9	<i>Artocarpus integrifolia</i>	Jack	Halasu.
10	<i>Artocarpus hirsuta</i>	Wild Jack	Hebbalsu.
11	<i>Diospyros ebenum</i> and <i>Melonoxydon</i> .	Ebony	Karimara.
12	<i>Xylia dolabriformis</i>	Ironwood	Tirwa or Jambe.
13	<i>Sapindus emarginatus</i>	Soapnut	Rintekai Kaye- mara.
14	<i>Pongamia glabra</i> ... ..	... ..	Honge.
15	<i>Acacia catechu</i> and <i>Sundra</i>	Catechu	Kachn.
16	<i>Myristica malabarica</i>	Wild nutmeg	Ramapatri.
17	<i>Calophyllum elatum</i>	Poonspar	Srihonne.
18	<i>Cinnamomum zeylanicum</i>	Cinnamon	Dalchini.
19	<i>Hopea parviflora</i> ... ..	... ..	Kiralboghi.
20	<i>Strychnos nux-vomica</i> ... ..	... ..	Kasarka.

For the tabular statement at the foot of the page and ending in page 20, substitute :—

Serial number.	Botanical name.	English name.	Kanarese name.
<i>Class I.</i>			
1	<i>Terminalia tomentosa</i> ... ..	...	Banapa or Mathi.
2	<i>Calophyllum wightianum</i> ... ..	...	Kalluhonne.
3	<i>Vitex Altissima</i> or <i>pubescens</i> ... ..	...	Myrole.
4	<i>Lagerstroemia Microcarpa</i>	Benteak	Bolandur or Bilinandi.
5	<i>Terminalia paniculata</i> ... ..	...	Marava or Honnagalu.
6	<i>Cedrela toona</i>	Red cedar	Kempugandhaghery.
7	<i>Eugenia gardheri</i> ... ..	...	Belitirpu.
<i>Class II.</i>			
8	<i>Lagerstroemia Flos reginae</i> ... ..	...	Challa.
9	<i>Albizzia Lebbek</i> ... ..	...	Pulibhagi.
10	<i>Albizzia Odoratissima</i> ... ..	...	Kalbhagi.
11	<i>Albizzia procera</i> ... ..	...	Adhangi.
<i>Class III.</i>			
12	<i>Artocarpus Lakoocha</i> ... ..	...	Watehuli.
13	<i>Adina cordifolia</i> ... ..	...	Anavu.
14	<i>Vateria indica</i> ... ..	...	Dhupa.
15	<i>Cocos nucifera</i>	Coconut	Thenginamara.
16	<i>Borassus flabelliformis</i>	Palmyra... ..	Thalimara.
17	<i>Caryota urens</i> ... ..	...	Byni.
18	<i>Areca catechu</i>	Areca palm	Kangu, Adike.

Grazing fees.

Page 20.—For the second paragraph ending in page 21, substitute :—Owing to the large area of unreserved land suitable for grazing purposes and the manner in which cultivated land and forest were intermingled in Kanara, no attempt was made originally to raise forest revenue by the imposition of grazing fees. In recent years most of the unreserved land suitable for grazing purposes has been assigned on darkhast and the reserved forests of the district have been opened to grazing on payment of grazing fees. A few areas have been, however, temporarily closed to grazing for silvicultural reasons such as the protection of young plantations or on account of repeated incendiary fires. Grazing fees, originally 3 annas and 6 annas per cow and buffalo units respectively were in 1920 increased to 6 annas and 10 annas and the average revenue per year from grazing has been Rs. 6,000.

Timber,
fuel and
minor forest
produce.

Departmental felling of timber was not at first carried out on a large scale, operations being confined to the Uppinangadi taluk for the supply of Mangalore market. At present departmental timber extraction from reserved forests is confined to the

clear-felling working circle of Coondapoor Range on account of the present depression of the timber market. If the market improves or shows definite signs of improvement, timber extraction will again be extended to all other ranges and combined with a progressive programme of road building to open up areas at present classed as inaccessible. Timber is sold either by tender or auction at stump site or at ports such as Coondapoor and Mangalore. Fuel felling in unreserved forests is permitted when required for *bona fide* domestic and agricultural purposes, generally one head-load or at most one cart-load. Larger quantities are liable to be attached and the burden of proving that any quantity of firewood removed from the forest is required for domestic or agricultural purposes is on the person removing it. Firewood is now extracted from reserved forests in eight fuel series in each of which a coupe of about 50 acres is sold standing each year. This fuel goes to Bombay and Mangalore and in the latter town is largely used by tile factories. The most extensive forest revenue operations are, however, in connection with minor produce. A great variety of such produce is collected by agents of the department from reserved forests and brought into depots where they are paid for at fixed rates, and in the case of scattered forests and "kumaki" lands any one who chooses can bring the produce to a depot and receive payment therefor. The right of collecting minor produce in the reserves as well as in the unreserves is now sold by auction annually, and this system has been working satisfactorily. Sales are held by the taluk tahsildars and approved by the district forest officer. The principal items of produce in the order of availability according to the statistics of the last few years are: (1) Cashewnuts (*Anacardium occidentale*), (2) Myrabolams (*Terminalia chebula*), (3) Dhupa fruits (*vateria indica*), (4) Cinnamon flowers and leaves (*cinnamomum zeylanicum*), (5) Shigekai (*Acacia concinna*), (6) Soapnut (*Sapindus emarginatus*), (7) Nux-vomica (*Strychnos nux-vomica*) and (8) Rampatri or wild nutmeg (*Myristica malabarica*). Canes, reeds and creepers are also collected. The most widespread produce is perhaps "shigekai" (*Acacia concinna*), which every alternate year gives a crop of nearly 100 tons. The next most widespread produce is "ramapatri" or wild mace, about 25 tons, worth as many thousand rupees. Next in importance come "cinnamon buds," and nux-vomica, though hardly ten tons of each of these are collected annually. Myrabolams found mainly in the Coondapoor taluk are poor in quality and not very abundant. Pepper is not so abundant now as it was before Tippu deliberately suppressed the trade to prevent intercourse with Europeans, but a few tons are said to be gathered annually. Collection of these products affords employment to large

numbers of poor people at certain seasons, equivalent if the work were distributed throughout the year to an establishment of about 500 men, women and children on an average wage of 2 annas a day.

Fishes.

Page 46, paragraphs 2 and 3 to page 47, paragraphs 1 and 2.—*Substitute*:—All the rivers of South Kanara close to the Western Ghats abound in mahseer, which run to about 15 lbs. and more in weight in the larger rivers, and fine sport with the rod is to be got at Sampaji, Subramanya, Sirádi, Sisila, Neriya, Chármádi and elsewhere. The stock would be much larger were it not for the poisoning and indiscriminate netting which goes on in the dry season, when the fish are congregated in the larger pools well inland. Since 1897 a good deal has been done to stop these practices in the larger rivers of the district. Destructive methods of fishing including fixed engines have been forbidden under Section 6 of the Indian Fisheries Act, though it is still carried on clandestinely in secluded spots in the absence of special staff to enforce the rules.

Besides mahseer (*Barbus tor*) called *Peruval* in Kanarese and Tulu, there are several species of fish known from the Kanara rivers, tanks and ponds of which the following are of importance as game and food fish which attain a size upwards of one foot in length:—

Barbus micropogon, C.V.

Barbus carnaticus, Jerdon. Vern. name—Sé-minu.

Barbus curmuca (Buchanan).

Barbus lithopidos, Day.

Barbus thomassi, Day.

Barbus pulchellus, Day.

Barbus Jerdoni, Day

Barbus malabaricus, Jerdon.

Labeo calbasu, (H. B.). Vern. name—Karimínu.

Glossogobius giuris (H.B.). Vern. name—Abroní.

Ophiocephalus striatus, Bloch. Vern. name—Huli kuch-chi.

Ophiocephalus micropeltes. Vern. name—Kuch-chi.

Ophiocephalus lencopunctatus, Sykes.

Ophiocephalus marulius H.B. Vern. name—Madánji.

Aoria chryseus, Day. Vern. name—Shede.

Callichrous bimaculatus (Bloch). Vern. name—Bale.

Callichrous malabaricus (C.V.)

Mastacembelus armatus (Lacep). Vern. name—Puriyol.

Anguilla, elphinstonei, Sykes. Vern. name—Mari.

All the above are freely eaten by almost all classes but in the Puttúr taluk many Hindus do not eat the *peruval* or

mahseer, as it is considered a sacred fish at Subramanya, Sisila and other temples. Objection is also taken by some to *murrel* (*Ophiocephalus*) as they think it is somewhat like a snake.

The smaller fish are too numerous to enumerate in detail but the *Barilius canarensis* (Pachili jabbu), *Barbus filamentosus* (the Black spot), and *Chela* may be mentioned as rising freely to fly, the first in the small rapids and the second and third in still water. In bottom fishing the lesser carps and cat-fish are usually taken with worm or paste by anglers.

An interesting pearl fishery exists in a pond belonging to the temple at Puttúr where pearl bearing mussels are found.

Economically the more important fisheries are those of the sea and back-waters. The district has a sea-board of 120 miles and about 404 miles of back-waters and estuaries. The sea-coast shelves gradually for miles forming an extensive continental shelf with submerged rocks in places as well as islands. The back-waters are extensive and run for long distances parallel with the coast. Being permanent water, unlike rivers, tanks and ponds, they provide shelter, feeding and breeding grounds for many sea and back-water fish.

Among the back-water fish the most prized are—

Lates calcarifer. (Cock up) Tulu—Koloji.

Eleutheronema tetradacyla. Tulu—(Bhameen or Indian Salmon).

Sillago sihama. (Whiting) Tulu—Kanai or Kandigai, and several species of *mugil* (grey mullets), Paray are the most esteemed.

Less valued but more abundant are—

Etroplus suratensis. (Pearl Spot) Can.—Erupey.

Sparus spp. (Breams) Can.—Yeri.

Scataphagus argus. (Spade fish).

Lutjanus spp. (Snappers).

Muraenidae. (Sea eels).

Therapon spp. (the banded perch).

Plotosus spp. and *Arius spp.* (cat fish) Tulu, Shede.

Leiognathus spp. Tulu—Kuruchi and *Gazza Minuta* (Silver bellies) and several kinds of Flat fish and Clupeids.

The well-known Milk fish (*Chanos*) which is extensively available in Java and the Philippines is found up to 3 feet in two brackish ponds at Coondapoor, called Hyder's fish ponds and elsewhere sparingly in the sea and backwaters of the district. Tradition has it that Hyder Ali introduced this fish and had the ponds specially dug in order to provide a supply for his own table. The fishery of these ponds has always been the property of Government. They are now under the care and control of the Fisheries Department.

By far the most important fisheries of the district are marine. The total estimated landings and value of sea-fish in South Kanara for the five years ending 1931 is given below:—

Year.	Total estimated landings in tons.	Value in rupees.
1926-27 ...	17,720	9,25,247
1927-28 ...	41,440	11,81,072
1928-29 ...	32,838	14,76,229
1929-30 ...	83,290	12,19,303
1930-31 ...	17,693	8,70,588
Total ...	192,981	56,72,439

Over 60 different kinds of marine food fish are commonly caught in the district.

Alectis and Stromateus (Black and White Pomfrets) and *Scomberomorus* (the seer) occur chiefly from December to June and are the most esteemed sea-fish. Sharks (*Scoliodon*, etc.) and Rays (*Trygon*, etc.) and Sergeant-fish (*Elacate niger*) are found throughout the year. "Palu-meen" (*Corinemus*) occur in the cold weather from October to February. Of great economic importance on account of their abundance are the seasonal shoaling fish, Oil Sardine from October to January, Mackerel from June to November, "Tunny" from September to March, Cat-fish from September to December, "Adaimen" (*Lacterius*) from December to April, Anchovy, *Engraulis spp.* and Silver Bellies (*Equula and Gazza*) from October to March and small soles from July to January. The species caught in the greatest abundance are the Indian Sardine (*Sardinella longiceps*)—Can. Bothai—and the Indian Mackerel (*Rostrilegar Kanagurta*)—Can. Bangidi. The Sardine and Mackerel fisheries as elsewhere in the world, are subject to great fluctuations. In abundant years many thousands of tons are converted into manure. The islands attached to the district are rich in fisheries though they have never been adequately exploited, and bonito, turtles, whales and porpoises are known to occur.

There are extensive and valuable shell-fish fisheries in the backwaters and the sea and prawns (*Peneus and peneopsis*) and crabs (*Scylla serrata* and *Neptunus spp.*) and spiny lobster (*Panulirus*) are the most important. Extensive edible oyster beds exist in the backwaters at Kásaragód, Mangalore, Múlki, and Coondapoor and on the rocks along the coast.

The sea-fishing castes of the South Kanara district are the Daljis, a sect of Muhammadan fishermen who speak Hindustani, at Shirúr, the northernmost fishing village of the district; the Mogéyers, a caste of Hindu fishermen speaking Tulu and Kanarese in Coondapoor, Udipi and Mangalore taluks who are

the most important and influential fishing community in the district; the Khárvís who are Konkani-speaking Hindu fishermen in the Coondapoor and Udipi taluks, and a sub-sect of the same caste called Kemmannu Khárvís who speak Kanarese and reside in the northern villages of the Coondapoor taluk; the Bovís, another caste of Hindu fishermen speaking Malayálam and found in the Mangalore and Kásaragód taluks; the Múkkavas, who are the Malayálam-speaking Hindu fishermen confined to the Kásaragód taluk and a sub-sect among them called Moonillakars residing in Hósdrug, Kanhangád and Nílëshwar in the Kásaragód taluk; and the Puislams who are Muhammadan fishermen and descendants of converts made by Hyder and Tippu and speak Malayalam and reside in the village of Arikadi in the Kásaragód taluk.

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There is no regular caste of fresh water fishermen. The agricultural classes fish the inland waters whenever they are low. Fishermen from Mysore also periodically visit the upper reaches of the rivers along the ghats on fishing excursions.

Page 48, paragraph 2 to end, pages 49, 50 and 51 and paragraphs 1 to 6 of page 52.—Substitute the following note on the geology and mineralogy of South Kanara, which has been kindly furnished by Dr. L. L. Fermor, O.B.E., D.Sc., F.R.S., F.G.S., Director, Geological Survey of India:—

Geology and
mineralogy.

“It is impossible to give an account of the geology of South Kanara for the reason that no geological survey of this district has ever been made, and all that we can do is to infer in a general way the geology of the district from what is known of the geology of the adjoining parts of Mysore, Coorg and Malabar.

South Kanara must be composed of gneisses and schists of Archaean age largely overlain by laterite, probably with recent deposits along the coast. There is an account of the geology of South Malabar, between the Beypore and Ponnani Rivers by Philip Lake, in *Memoirs, Geological Survey of India*, Vol. XXIV, Part 3, with a map, and it is exceedingly likely that the geology of the southern portion of South Kanara is approximately similar; in particular, this work could be consulted for an account of the formation and mode of occurrence of laterite.

Coming now to the Archaean rocks of South Kanara, they are probably mainly gneisses with a general north-west to south-east strike. Lake, in the Memoir just cited, mentions the occurrence in Malabar of hornblendic and garnetiferous gneisses, hematitic and magnetic gneisses, and quartzose gneisses with hornblende and mica, and also granitoid gneisses. It is probable that some of these gneisses exist in South Kanara.