

# Chapter 02

## The Turtle Collection of the Zoological Survey of India, Kolkata, India

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The foundation (in 1784) of the Asiatic Society of Bengal at Calcutta, then capital of British India by Sir William Jones (1746–1796) was a significant step towards the establishment of systematic research in zoology and the exploration of natural diversity of India and adjacent countries. It is thus to early European naturalists that we are indebted for commencing scientific research on the biodiversity of a subcontinent, which is both diverse and abundant. Often at great personal risk, these pioneers traveled extensively to what must have been inaccessible regions, returning often with spectacular specimens for the Society's Museum. The early exploration phase in the Indian region started in the early 1800s and lasted till the end of that century, when many species of Indian turtles were described. The large (and eclectic) membership of the Society was responsible for the arrival of both palaeontological and zoological material to the museum of the aforementioned Society, from all over British India, and occasionally, beyond, including the Middle East, Africa, North America, Central Asia, the Malayan Peninsula and Archipelago and eastern China, especially after 1824.

In 1866, with the passing of the Indian Museum Act, this collection was handed over to the Indian Museum (Fermor, 1836), and with the establishment of the Zoological Survey of India (ZSI) in 1916, the zoological collections were passed on to this organization, which included a large number of turtle specimens, both wet and dry. The ZSI, with its headquarters at Kolkata, is the single largest repository of zoological material in the country. The collection of turtles was made by often prominent naturalists of the time, being either gifts from the members of the Asiatic Society or collected by the staff of the Society, or the ZSI (Plate 2A–2D) during scientific expeditions, such as to Yarkand, Yunnan, Chilka Lake, Little Andaman, Great Nicobar, Chotanagpur, *etc.* Specimens were also received from museums such as Berlin, London, Karachi and Port Louis, via exchanges or as donations. Notable collectors of herpetological (including turtle) material include: John Anderson (1833–1900), Thomas Nelson Annandale (1876–1924), William Thomas Blanford (1832–1905), Banawari Lal Choudhuri (?–1913), John Cockburn (?–?), George Edward Dobson (1848–1895), Ashley Eden (1831–1887), Henry Haversham Godwin-Austen (1834–1923), John Robert Henderson (1863–1925), Baini Prashad (1894–1969), Edward Bosc Sladen (1831–1890), Ferdinand Stoliczka (1838–1874) and William Theobald (1829–1908).

This essay presents a listing of the contents of the turtle collection in the Zoological Survey of India, Kolkata (i.e., the National Zoological Collection). Plate 2E and 2F show representatives of turtle types in the ZSI, which are preserved in a custom-built fire-proof building, behind the Indian Museum building, at 16-Jawaharlal Nehru Road. Other important turtle collections in the 16 regional stations of the Survey have not been included, and neither are the palaeontological material of turtles from mostly the North Indian Shiwaliks and also some Jurassic and Eocene turtle material of the Asiatic Society of Bengal and the Geological Survey of India, that are currently stored in the adjacent Indian Museum or Geological Survey of India buildings. The term 'turtle' includes members of the Order Testudines (Chelonia or Chelonii, of some authors). Nomenclature follows Fritz and Havas (2007). The geographical spread of the samples include, besides general localities (such as 'Atlantic Ocean' or 'Arabia', or those received without data from zoos and museums), Afghanistan, Bangladesh, China, Eritrea, India, Indonesia, Iran, Iraq, Japan, Madagascar, Malaysia, Mauritius, Myanmar, Palestine, Pakistan, Seychelles, South Africa, Sri Lanka, Thailand and the U.S.A.



**Table-1** presents a list of turtles from the general collection (= non-types); **Table-2** lists turtle types present in the collection (updated from the listing in Das *et al.*, 1998). Abbreviations include: C = central; E = east; km = kilometer; mi = mile; N = north; NE = north-east; nr = near; NW = north-west; PWD = Public Works Department; S = south; SE = south-east and W = west. Contemporary locality names have been used, as far as possible.

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#### References

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Table-1: List of general (= non-type) collections of turtles currently present in the ZSI, Kolkata.

S. No	Systematic List	Locality (number of specimens)	Reg. No.
<b>Family: Dermochelyidae</b>			
1	<i>Dermochelys coriacea</i> (Vandelli, 1761)	Myanmar: Tenasserim (1)	ZSI 887
<b>Family: Cheloniidae</b>			
2	<i>Caretta caretta</i> (Linnaeus, 1758)	Atlantic Ocean (2)	ZSI, 387, 3858,
3	<i>Chelonia mydas</i> (Linnaeus, 1758)	India: Bay of Bengal (1); SE Satpura Peninsula Channel, Orissa (1); Galathea Bay, Great Nicobar (1); Andamans (1); Myanmar: Yangon (2); Kyaikkami (1); Thamihla Kyun (1); Atlantic Ocean (1)	ZSI 22489, 307, 308, 310, 3881, 295, 18989, 363, 389,
4	<i>Eretmochelys imbricata</i> (Linnaeus, 1766)	India: Andamans (1); Andaman Island (1); Konamic, Little Andaman (1); Campbell Bay, Great Nicobar (2); Thailand: Bangkok (1); Atlantic Ocean (1)	ZSI 316, 386, 14705, 1768, 20924, 22488, 23425
5	<i>Lepidochelys olivacea</i> (Eschscholtz, 1829)	India: Chandbali Coast, Balasore District, Orissa (2); Gahirmatha Beach, Orissa (1); Digha, District Midnapore, West Bengal (1); Vishakapatnam, Andhra Pradesh (1); Trivandrum Beach, Kerala (3); nr. PWD Jetty, Mayabandar, North Andaman (1)	ZSI 23972, 23982, 24134, 24536, 24713, 24972, 13568, 13567, 13569,
<b>Family: Bataguridae</b>			
6	<i>Batagur dhongoka</i> (Gray, 1832)	India: River Ganga, Rajmahal, Jharkhand (10); Santhal Parganas District, Jharkhand (1); Oodhuna, nr. Rajmahal, Jharkhand (2); Titeghar, West Bengal (1); Sagar, Sagar District, Madhya Pradesh (1); Agra, Uttar Pradesh (2); Allahabad, Uttar Pradesh (4); Sonarpur, Assam (2)	ZSI 20643, 16789, 20635, 20636, 20637, 20638, 20639, 20640, 20641, 20642, 1445, 18984, 858, 194, 197, 473, 501, 502, 1889, 20450, 17433, 17099, 18319, 18320,
7	<i>Batagur kachuga</i> (Gray, 1831)	India: Ferozpur, Punjab (2); Kolkata, West Bengal (1); River Hooghly, Kolkata, West Bengal (1); Purnia, Bihar (1); River Ganga, Rajmahal, Jharkhand (3); Rajmahal, Jharkhand (1); Bhagalpur, Bihar (1); Lucknow, Uttar Pradesh (1); Pakistan: Lahore (1)	ZSI 17607, 10610, 16792, 202, 1438, 20632, 20630, 20634, 16778, 23005, 23743, 846
8	<i>Cuora amboinensis</i> (Daudin, 1801)	India: Great Nicobar (1); Mazbat, Mangaldai, N of River Brahmaputra, Assam (1); Ajiam (unlocated) (1); Malaysia (2); Myanmar: Myanmar (4); Tenasserim (1)	ZSI 14712, 16690, 817, 818, 819, 928, 993, 13350, 1344.
9	<i>Cuora mouhotii</i> (Gray, 1862)	India: Garo Hills, Meghalaya (5); Assam (1); Deban, 27 km E of Miao, Tirap District, Arunachal Pradesh (1); Myanmar: Myanmar (1)	ZSI 14, 708, 709, 913, 914, 1484, 1016, 23923
10	<i>Cyclemys dentata</i> (Gray, 1831) species complex	India: Tura, Garo Hills, Meghalaya (1); 3.5 mi Calin, Tura, Garo Hills, Meghalaya (1); 3.5 mi Bebo, Tura, foot of Garo Hills, Meghalaya (1); Narayanpur Tea Estate, Cachar, Assam (1); Sibsagar, Assam (1); Jaronti River, W. Doars, West Bengal (1); unknown, listed as from "Calcutta, West Bengal" (1); Myanmar: Myanmar (9); He Ho Plains, S. Shan State (1); Sattam Chaung Stream, Mitkyina District (1); Inle-Lake, South Shan State (1); He-Hah, S. Shan State (1); Fort Steadman, Inle Lake, S. Shan States (1); Sittwe (1); Rakhine Yoma (2); Tenasserim, Myanmar	ZSI 760, 775, 18568, 19235, 20023, 20449, 1320, 132, 1327, 18593, 1328, 1329, 1330, 18482, 1332, 18593, 18594, 13, 410, 12603, 18482, 820, 821, 994, 1356, 335
11	<i>Geoclemys hamiltonii</i> (Gray, 1831)	Bangladesh: Jessore (2); India: River Matlah, West Bengal (2); Zoological Gardens, Kolkata, West Bengal (1); Kolkata, West Bengal (12); Hosiarpur, Punjab (1); Ferozpur, Punjab (1); Kaziranga National Park, Golaghat District, Assam (5); Sonarpur, Kamrup, Assam (1)	ZSI 103, 104, 3863, 101, 102, 71, 73, 84, 65, 89, 96, 97, 99, 100, 1410, 1412, 1411, 1632, 20570, 18339, 17611, 24755, 24706, 24707, 24708, 24709



12	<i>Hardella thurjii</i> (Gray, 1831)	Bangladesh: Jessore (1); Dhaka (1); India: Oodhuna nr. Rajmahal, Jharkhand (1); River Ganga at Rajmahal, Jharkhand (4); Purria District, Bihar (4); Rajmahal, Bihar (1); Kolassy, Purnea District, Jharkhand (1); Siripur, Saran, Bihar (1), Shillong, Meghalaya (1); Kolkata, West Bengal (11); Kolkata, West Bengal (2); Allahabad, Uttar Pradesh (2)	16776, 2337, 843, 849, 853, 854, 855, 74, 75, 78, 79, 80, 135, 448, 20644, 20645, 20646, 20647, 1424, 1426, 1435, 1427, 1500, 16776, 17436, 105, 1428, 1480, 1431.
13	<i>Heosemys annandalii</i> (Boulenger, 1903)	Thailand (1)	ZSI 18914
14	<i>Heosemys depressa</i> (Anderson, 1875)	Myanmar: Myanmar (1); Rakhine (2)	ZSI 490, 1176, 1332
15	<i>Heosemys grandis</i> Gray (Gray, 1860)	Myanmar: Myanmar (19); Rakhine (1); also, 'Enoshima, Japan' (erroneous data) (1)	ZSI 916, 918, 920, 921, 922, 1310, 1315, 1316, 1490, 923, 1309, 1311, 1317, 699, 917, 926, 927, 710, 729, 815, 13008
16	<i>Heosemys spinosa</i> (Gray, 1830)	Malaysia: Sarawak (1)	ZSI 11693
17	<i>Malayemys subtrijuga</i> (Schlegel and Müller, 1845)	Indonesia: Java (3); Thailand: Songkhla (1); Lampan, Phatthalung (2)	ZSI 824, 825, 826, 18041, 18025, 18027
18	<i>Melanochelys tricarinata</i> (Blyth, 1856)	India: Baradighi Tea Estate, Jalpaiguri District, West Bengal (2); Teesta Bazar, Teesta Valley, West Bengal (1); Budhram, Kalipur Forest, Gorumara National Park, West Bengal (1); N Brahmaputra, Assam (1); Sonarpur, Assam (1); Dafla Hills, Arunachal Pradesh (1); Chotanagpur, Jharkhand (1); Munguraha forest, West Champaran District, Bihar (1)	ZSI 18043, 20448, 18042, 18329, 18391, 1017, 1324, 25131, 25299
19	<i>Melanochelys trijuga coronata</i> (Anderson, 1879)	India: Cannore District, Kerala (1); Chalakudi, Cochin, Kerala (1); 25 km NE of Calicut, Kerala (1)	ZSI 23946, 17018, 17437
20	<i>Melanochelys trijuga edeniana</i> Theobald, 1876	Myanmar: Myanmar (3)	ZSI 550, 930, 20445
21	<i>Melanochelys trijuga indopeninsularis</i> (Annandale, 1913)	India: Baradighi Tea Estate, Jalpaiguri District, West Bengal (1)	ZSI 17991
22	<i>Melanochelys trijuga thermalis</i> (Lesson, 1830)	Sri Lanka: Sri Lanka (57)	ZSI 33, 35, 36, 39, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 26, 27, 28, 30, 1357, 1358, 1361, 1362, 1363, 933, 1358, 1360, 1359, 1361, 1384, 1388, 1389, 1390, 1399, 1401, 1400, 1402, 1382, 1395, 1404, 1385, 1389, 1638, 1639, 1357, 1362, 1363, 1403, 1638, 37, 19, 67, 68, 22, 2589, 1348
23	<i>Melanochelys trijuga triuga</i> (Schweigger, 1812)	India: Dhavan Village, 8 km E of Forest Rest House, Valpoi, Goa (1); Chandi Village, 64 km from Ponda, Goa (1); Nagare River, Valpoi, Goa (1); Canacona, Goa (1); Chennai, Tamil Nadu (2); Kargudi, Nilgiris, Tamil Nadu (3)	ZSI 22009, 22010, 22008, 16722, 17434, 21926, 16723, 17434, 23351
24	<i>Pangshura smithii</i> (Gray, 1863)	Bangladesh: Rajshahi (1); India: Agra, Uttar Pradesh (1); Allahabad, Uttar Pradesh (12); Oodhuna, Rajmahal, Jharkhand (3); Firozpur, Punjab (1); Pakistan: Lahore (1)	ZSI 3867, 3868, 451-463, 471, 472, 200, 15848, 16773, 16774, 16775, 16788, 17606, 1476,
25	<i>Pangshura sylhetensis</i> (Jerdon, 1870)	Bangladesh: Mairimekh, Chittagong Hill Tract (1); India: Cachar, Assam (1); Garo Hills, Meghalaya (1); Nameri, Seijusa, East Kameng District, Arunachal Pradesh (1); Ajiam (unlocated) (1); Naga Hills, Nagaland (1); Budhram, Kalipur Forest, Gorumara National Park, West Bengal	ZSI 110, 3923, 24647, 954, 955, 956, 19240, 25130

26	<i>Pangshura tectum</i> (Gray, 1830)	Bangladesh: village nr. Heal Hoon, Moulvi Bazar District (1); India: NW of Agra, Uttar Pradesh (6); Agra, Uttar Pradesh (1); Allahabad, Uttar Pradesh (3); Makhu, Firozpur, Punjab (1); Kolkata, West Bengal (10); Baradighi Tea Estate, Jalpaiguri District, West Bengal (1); Palta, 24 Parganas, West Bengal (1); branch of River Taur, N of Magwal Village, Jammu District, Jammu and Kashmir (1); Cherrapunji, Meghalaya (1); Delong, Abor Hills, Arunachal Pradesh (1); Seonath River, Bilaspur, Chhatisgarh (1); Bhopal, Madhya Pradesh (1)	ZSI 116-121, 147, 149-152, 164, 868, 466, 492, 493, 17609, 18015, 19236, 171, 172-174, 1477, 22964, 21672, 16909, 17775, 24258, 24752
27	<i>Pangshura tentoria</i> (Gray, 1834)	India: Cuttack, Orissa (2); Tikarpara, Dhenkanal District, Orissa (3); River Mahanadi, Cuttack, Orissa (4); Kaziranga National Park, Golaghat District, Assam (1); Gobrai, Kaziranga National Park, District Golaghat, Assam (3)	ZSI 16782, 16793, 16794, 16767, 16768, 16771, 24710, 24131, 24132, 24133, 525, 24710, 24711, 24712
28	<i>Morenia petersi</i> (Anderson, 1879)	Bangladesh: Faridpur (2); Noakhali (1) India: N Brahmaputra, Assam (1); Kolkata, West Bengal (3)	ZSI 155, 156, 18335, 865, 866, 867, 17435
29	<i>Morenia ocellata</i> (Duméril and Bibron, 1835)	Myanmar: Myanmar (20); Bago, S Myanmar (6) Sittwe (4)	ZSI 940, 941, 950, 951, 1468, 1469, 1470, 1488, 1473, 935, 939, 180, 185, 191, 199, 203, 206, 207, 208, 211, 859, 861, 860, 862, 863, 864, 178, 179, 1601, 946
30	<i>Notochelys platynota</i> (Gray, 1834)	Myanmar: Myanmar (3)	ZSI 1021, 1323, 1326
31	<i>Orlitia borneensis</i> Gray, 1873	Malaysia: Pulau Pinang (1)	ZSI 764
32	<i>Siebenrockiella crassicollis</i> (Gray, 1831)	Malaysia: Pulau Pinang (2); Thailand: Songkhla (2); Lungpung, Phatthalung (2)	ZSI 3862, 764, 18023, 18024, 18039, 18040, 567, 639, 640, 1378
33	<i>Vijayachelys silvatica</i> (Henderson, 1912)	India: Cochin, Kerala (1)	ZSI 17115
<b>Family: Emydidae</b>			
34	<i>Clemmys guttata</i> (Schneider, 1792)	"North America" (2)	ZSI 395, 397
35	<i>Emys orbicularis</i> (Linnaeus, 1758)	Unlocated: Engalion, Caspian Sea (2); no data (donor: Berlin Museum) (1)	ZSI 302, 978.485
36	<i>Mauremys caspica</i> (Gmelin, 1774)	Iran: N Iran (4); Caspian Sea (1); Iraq: Euphrates River at Nasariyeh (5)	ZSI 296, 297, 298, 299, 505, 19238, 18894.18892, 18893, 18894
37	<i>Mauremys japonica</i> (Temminck and Schlegel, 1835)	Japan: Japan (1)	ZSI 1418
38	<i>Mauremys rivulata</i> (Valenciennes, 1833)	Israel: Sea of Galilee (4); Palestine: W of Essemakh Lake (2)	ZSI 11349, 11350, 11351, 11352,
39	<i>Trachemys scripta</i> (Schoepff, 1792)	U.S.A.: Charleston, South Carolina (1); also, North America (2)	ZSI 418, 444, 3860
<b>Family: Pelomedusidae</b>			
40	<i>Pelomedusa subrufa</i> (Lacépède, 1788)	Eritrea: Anseba Valley (2)	ZSI 314, 315
<b>Family: Platysternidae</b>			
41	<i>Platysternon megacephalum</i> Gray, 1831	Myanmar: Mottama, Mon State (1); Tounghoo, Sittoung (1); Down Hills (unlocated) (1)	ZSI 873, 205, 16040, 16720
<b>Family: Testudinidae</b>			
42	<i>Aldabrachelys gigantea</i> (Schweigger, 1812)	Seychelles: Aldabra Atoll (1)	ZSI 25869



43	<i>Astrochelys radiata</i> (Shaw, 1802)	South Africa: South Africa (1); Madagascar: Madagascar (1)	ZSI 804, 15487
44	<i>Chersina angulata</i> (Schweigger, 1812)	South Africa: South Africa (1)	ZSI 808
45	<i>Chelonoidis denticulata</i> (Linnaeus, 1766)	No data (donor: Zoological Gardens, Kolkata, West Bengal) (1)	ZSI 16724
46	<i>Cylindraspis triserrata</i> (Günter, 1873)	No data (donor: Port Louis Museum, Mauritius) (1)	ZSI 14921
47	<i>Geochelone elegans</i> (Schoepff, 1795)	India: Visakhapatnam, Andhra Pradesh (4); Kolkata, West Bengal (erroneous locality) (1); nr. Pundal Village, 4 km w of Dak Bunglow, Bhilwara District, Rajasthan (1); forest nr. Udaipur, Rajasthan (1); 30 km Udaipur-Jodhpur Road, Rajasthan (1); Parvathsar District, Rajasthan (1); Palanpur, Banaskantha District, Gujarat (1); Sri Lanka: Sri Lanka (7)	ZSI 769, 774, 1145, 1147, 1148, 1149, 1152, 790, 791, 786, 15495, 792, 21694, 24529, 24530, 24519, 25041
48	<i>Geochelone platynota</i> (Blyth, 1863)	Myanmar: Myanmar (1), N Myanmar (3); Sittwe (1); N Bago (1)	ZSI 787, 788, 789, 988, 2653, 17049
49	<i>Indotestudo elongata</i> (Blyth, 1853)	India: Chaibasa, Singhbhum District, Jharkhand (1); Baradighi Tea Estate, Jalpaiguri, West Bengal (5); Bangladesh: West Bhanugach Reserve Forest, Moulvi Bazaar District (1); Myanmar: Myanmar (20); Sittwe (2)	ZSI 4, 1304, 1134, 1135, 1136, 1137, 18016, 18125, 713, 2652, 2653, 5, 8, 768, 52, 907, 908, 909, 989, 1101, 1116, 1117, 11379, 24753, 17992, 18162, 18016, 18125, 18171
50	<i>Indotestudo travancorica</i> (Boulenger, 1907)	India: Cochin State Forest, Kerala (2); Punalore, Travancore, Kerala (1)	ZSI 17697, 17017, 18045
51	<i>Manouria emys phayrei</i> (Blyth, 1853)	India: Cachar hills, Assam (2); Nongkhyllam Wildlife Sanctuary, Khasi Hills, Meghalaya (1); Myanmar: Rakhine (8); 'Madagascar' (erroneous locality) (1)	ZSI 813, 814, 15492, 730, 983, 984, 985, 3950, 15489, 15545, 20476, 25125
52	<i>Testudo graeca</i> Linnaeus, 1758	Palestine: Hun-Sb-Tin, nr. Lake Galille (3); "SE Arabia": Karman (2)	ZSI 11346, 11347, 11348, 300, 301
53	<i>Testudo graeca ibera</i> Pallas (1814)	Iran: Karnan (2); Palestine: Aun-Sb-Tin nr. Galille (2); Unknown (donor: Berlin Museum) (1)	ZSI 300, 301, 519, 11346, 11347
54	<i>Testudo hermanni</i> Gmelin, 1789	Unknown (donor: Berlin Museum) (8)	ZSI 507, 508, 509, 510, 515, 516, 517, 518
55	<i>Testudo horsfieldii</i> Gray, 1844	Afghanistan: Afghanistan (2); Kabul (5); Pakistan: Balochistan (4), Khanai, Quetta District (1); Quetta (3)	ZSI 11420, 15538, 15541, 15551, 15552, 16479, 16480, 16478, 793, 3856, 5591, 5592, 5593, 5594, 5595
<b>Family: Trionychidae</b>			
56	<i>Amyda cartilaginea</i> (Boddaert, 1770)	Malaysia: Perak (1); Pulau Pinang (2); Myanmar: Ayeyarwadi River (1)	ZSI 2632, 13207, 765, 1094
57	<i>Chitra indica</i> (Gray, 1831)	Bangladesh: Khulna (1); Dhaka (1); India: Allahabad, Uttar Pradesh (4); Kolkata, West Bengal; (2); Baradighi Tea Estate, West Bengal (1)	ZSI 367, 368, 483, 506, 1113, 1776, 16753, 1053, 1760
58	<i>Dogania subplana</i> (Geoffroy Saint-Hillaire, 1809)	Indonesia: East coast of Sumatra (1); Myanmar: Myeik Archipelago (1)	ZS 661, 11589, 13468,

59	<i>Lissemys punctata</i> (Lacépède, 1788)	Bangladesh: Machkharia Depa, Ukhia, Cox's Bazar District (1); India: Nagpur, Maharashtra (1); Goa (2); River Mahanadi, Orissa (1); Hazaribagh, Jharkhand (4); Ranchi, Jharkhand (3); Chaibassa, Jharkhand (1); Manbhum, Jharkhand (1); Singbhum, Jharkhand (5); Chotanagpur, Jharkhand (2); River Mahanadi, Cuttack, Orissa (3); Paradip, Orissa (1); Konarak, District Puri, Orissa (1); Mahakhand, Orissa (1); Nandankanan, Cuttack District, Orissa (1); Cuttack, Orissa (4); Dhamara, Orissa (1); Gopkuda Island, Chilka Lake, Orissa (1); Cheera Bandh, 5 km W of Chandawa District, Chotanagpur, Bihar (1); River Ganga, Bhagatpur, Bihar (1); Madras Museum, Chennai, Tamil Nadu (1); Travancore, Kerala (2); Cannore District, Kerala (1); Samaville, N of Palaconda, Srikakulum District, Andhra Pradesh (1); nr. Purulia, Manbhum District, West Bengal (1); Kolkata, West Bengal (6); Hooghly River, West Bengal (8); (1); Baradighi Tea Estate, West Bengal (1); Palta, 24 Parganas, West Bengal (1); Bangalore, Karnataka (1); Canacona Town, Goa (1); Ana Sagar, Ajmer, Rajasthan (1); Devdyani Sambhar Lake, Jaipur District, Rajasthan (1); Kachchh, Gujarat (1); Rajkot, Gujarat (1); Bachan, District Kachchh, Gujarat (1); Gudkar Nabhoi Forest, Bhuj, District Kachchh, Gujarat (1); Bilaspur, Chhatisgarh (1); Varanasi, Uttar Pradesh (2); River Ganga in Uttar Pradesh (1); Teliamura, Tripura (1); Myanmar: Myanmar (2); Moulmein (2); Mansam, N. Shan State (1); Sittwe (2); Pakistan: Sindh (1); Jempur, Sindh (1); River Indus (1); Sri Lanka: Colombo (1)	ZSI 246, 247, 248, 249, 250, 251, 252, 253, 16694, 294, 405, 12568, 15990, 16765, 1774, 23486, 1686, 1694, 1688, 1692, 1693, 254, 257, 260, 261, 263, 264, 280, 1660, 1025, 16772, 16785, 16786, 23800, 23945, 22571, 22692, 22709, 22745, 15911, 16911, 17016, 17043, 17044, 21151, 21129, 21007, 22011, 266, 267, 268, 269, 21476, 21981, 25046, 25040, 214, 215, 239, 875, 876, 877, 216, 218, 230, 232, 233, 234, 235, 238, 23003, 24302, 242, 243, 3877, 3879, 17993, 23006, 22963, 24754, 24850
60	<i>Nilssonina gangetica</i> (Cuvier, 1825)	Bangladesh: Khulna (2); India: Kolkata, West Bengal (15); River Hooghly, West Bengal (2); Allahabad, Uttar Pradesh (8); River Ganga, Uttar Pradesh (2); Agra, Uttar Pradesh (3); River Mahanadi, Cuttack, Orissa (1); Cuttack, Orissa (3); River Hasdeo, Chattisgarh (2); Firozpur, Punjab (1); Sambalpur, Orissa (1); River Ganga at Bhagatpur, Bihar (1); River Chambal, Madhya Pradesh (1); Pallapeddygudum Village, Guntur, Andhra Pradesh (1); Rajmahal, Jharkhand (1); Bhopal, Madhya Pradesh (1) Pakistan: River Indus, Karachi (5)	ZSI 1716, 1720, 1722, 1724, 1080, 1083, 1084, 1085, 879, 1893, 1813, 1805, 1806, 1808, 3870, 756, 468, 317, 736, 3873, 284, 1729, 1810, 1053, 1054, 286, 3869, 3872, 1835, 1836, 1732, 1727, 1728, 17014, 287, 291, 16751, 16750, 16912, 17014, 17015, 1087, 1088, 17613, 16790, 23004, 24821, 21238, 16791, 23801
61	<i>Nilssonina hurum</i> (Gray, 1831)	Bangladesh: Kaligunj, Khulna (2); "Assam side of Sunderbans" (= Chittagong, Bangladesh) (1); Khulna, Bangladesh (1); Natore, Rajshahi (1); India: Kolkata, West Bengal (11); Uttarapara, West Bengal (1); Rajmahal, Jharkhand (1); "Gangetic Delta" (1); Nazeerah, Assam (1); Sibsagar, Assam (1); Sonarpur, Assam (1); Allahabad, Uttar Pradesh (3); Lower Lake, Bhopal District, Madhya Pradesh (1); Little Gandak River, Pusha, Bihar (1); Klierpur, Purnea District, Bihar (1); Oodhuna, Rajmahal, Jharkhand (1)	ZSI, 1796, 1784, 1047, 1050, 1810, 16505, 1090, 270, 271, 272, 276, 283, 303, 402, 497, 495, 1196, 20818, 16627, 16996, 16750, 16752, 24408, 17714, 18018, 660, 5578, 17007
62	<i>Nilssonina formosa</i> (Gray, 1869)	Myanmar: Myanmar (6); Mandalay (2); Ayeyarwadi River (3); Mawlamyine (1)	ZSI 277, 278, 687, 1051, 688, 1785, 634, 1837, 766, 1786



63	<i>Nilssonina leithii</i> (Gray, 1872)	India: Peddavagu River, nr. Payavaram village, Andhra Pradesh (1); River Godavari, Andhra Pradesh (1); Nallamalai, Eastern Ghats, Andhra Pradesh (1); River Mula nr. Sathi Biscuit Company, Poona, Maharashtra (1); Dhond, Poona District, Maharashtra (1); Jamuna Tank, Nagpur, Maharashtra (1); Satara, District Satara, Maharashtra (1); Hasdeo River at Bilaspur, Chattisgarh (2)	ZSI 21403, 21477, 21539, 17973, 522, 523, 1731, 22564, 17716
64	<i>Nilssonina nigricans</i> (Anderson, 1875)	Bangladesh: Chittagong Tank (2)	ZSI 1918, 1898
65	<i>Pelodiscus sinensis</i> (Wiegmann, 1834)	China: Shanghai (2); Taihu, Jiangsu Province, China (1); Japan: Hienoe Lake (2); Unknown: (exchange - British Museum) (1)	ZSI 279, 4693, 4694, 18034, 18035, 18036
66	<i>Pelochelys cantorii</i> (Gray, 1864)	Kolkata, West Bengal (1)	ZSI 20478

Table-2: List of type collections of turtles currently present in the ZSI, Kolkata, updated from Das *et al.*, 1998).

Sl. No.	Systematic List	Locality (ex.)	Reg. No	Remarks
<b>Family: Bataguridae</b>				
1	<i>Batagur irawadica</i> Anderson, '1878' 1879	'Pegu' (= Bago, S Myanmar) or 'Bhamo' in Upper Myanmar' (in Kachin State, N Myanmar)	ZSI 743 (syntype)	Subjective synonym of <i>Batagur trivittata</i> (Duméril and Bibron, 1835)
2	<i>Batagur petersi</i> Anderson, '1878'	Purchased in a 'Calcutta bazaar', the type series originating from 'Huzurapur' (in Jessor District, Bangladesh)	ZSI 155 and 156 (syntypes),	Current status: <i>Morenia petersi</i> (Anderson, '1878' 1879)
3	<i>Chaibassia theobaldi</i> Anderson, '1878' 1879.	'Bishnath Plain' (= Biswanath Plains, Sonitpur District, Assam, NE India)	ZSI 188-189 (syntypes) from	Current status: Subjective synonym of <i>Melanochelys tricarinata</i> (Blyth, 1856)
4	<i>Cyclemys dhor shanensis</i> Annandale, 1918	'Fort Stedman on the Inlé Lake, altitude 3,000 feet' (in Shan State, N Myanmar); ZSI 18594 (syntype), from 'He-Ho plain 800 feet higher' (than 3,000 feet) (in Shan State, N Myanmar)	ZSI 18593 (syntype), ZSI 18594 (syntype),	<i>Cyclemys shanensis</i> Annandale, 1918
5	<i>Emys nuchalis</i> Blyth, 1863	'Java?' (= Jawa, Indonesia)	ZSI 824-826 (syntypes)	Subjective synonym of <i>Malayemys subtrijuga</i> (Schlegel and Müller, 1844)
6	<i>Emys (Pangshura) tectum</i> var. <i>intermedia</i> Blanford, 1870	'Chappa and Korba in Biláspúr, on the Hasdo river' (= River Hasdeo, in Chattisgarh, C India)	ZSI 122-123 (syntypes)	<i>Pangshura tentoria tentoria</i> (Gray, 1834)
7	<i>Emys trijuga</i> var. <i>Burmiana</i> Anderson in Theobald, '1878' 1879	'Bhamo' (in Kachin State, N Myanmar)	ZSI 830 (syntype)	Subjective synonym of <i>Melanochelys trijuga edeniana</i> (Anderson in Theobald, 1876)
8	<i>Emys trijuga</i> var. <i>coronata</i> Anderson, '1878' 1879	'Travancore' (in Kerala State, SW India)	ZSI 1012 (holotype)	Current status: <i>Melanochelys trijuga coronata</i> (Anderson, '1878' 1879).
9	<i>Emys trijuga</i> var. <i>madraspatana</i> Anderson, '1878' 1879	'Madras' (= Chennai, Tamil Nadu State, SE India)	ZSI 831, 1008 and 1009 (syntypes)	Subjective synonym of <i>Melanochelys trijuga trijuga</i> (Schweigger, 1814)
10	<i>Geoemyda depressa</i> Anderson, 1875	'Arakan' (= Rakhine Yoma, W Myanmar)	ZSI 751 (syntype)	Current status: <i>Heosemys depressa</i> (Anderson, 1875)
11	<i>Geoemyda indopeninsularis</i> Annandale, 1913	'Singhbhum district of Chota Nagpur' (in Jharkhand State, E India) and 'Dharwar district...southern part of the Bombay Presidency' (in error) (in Karnataka State, SW India)	ZSI 17098 and 17100 (syntypes)	Current status: <i>Melanochelys trijuga indopeninsularis</i> (Annandale, 1913)

12	<i>Geoemyda silvatica</i> Henderson, 1912	'Near Kavalai in the Cochin State Forest...at an elevation of about 1500 feet above sea level' (in Kerala State, SW India)	ZSI 17117 (holotype)	Current status: <i>Vijayachelys silvatica</i> (Henderson, 1912)
13	<i>Geoemyda trijuga</i> subsp. <i>plumbea</i> Annandale, 1915	'Coorg on the east side of the Western Ghats' (in Karnataka State, SW India)	ZSI 17712 and 17715 (syntypes)	Current status: Subjective synonym of <i>Melanochelys trijuga trijuga</i> (Schweigger, 1814)
14	<i>Geoemyda tricarinata</i> Blyth, '1855' 1856	'Central India (Chaibása)' (in Jharkhand State, E India)	ZSI 816 (holotype)	Current status: <i>Melanochelys tricarinata</i> (Blyth, '1855' 1856)
15	<i>Melanochelys edemiana</i> Anderson in Theobald, 1876	'Arakan, Pegu, and Tenasserim' (= Rakhine Yoma, Bago and Taninthayi, W and S Myanmar)	ZSI 1371, 1369, 1010, 1011, 1018, 1097 and 930 (syntypes)	Current status: <i>Melanochelys trijuga edemiana</i> Anderson in Theobald, 1876
<b>Family: Testudinidae</b>				
16	<i>Homopus Burnesii</i> Blyth, 1853	'Afghanistan'	ZSI 793 (holotype)	Current status: Subjective synonym of <i>Testudo horsfieldii</i> Gray, 1844.
17	<i>Testudo baluchiorum</i> Annandale, 1906	'Baluchistan' (= Balochistan Province, NW Pakistan)	ZSI 11420 (holotype)	Current status: Subjective synonym of <i>Testudo horsfieldii</i> Gray, 1844
18	<i>Testudo elongata</i> Blyth, 1853	'Arakan' (= Rakhine Yoma, W Myanmar)	ZSI 796, 798-800 (syntypes)	Current status: <i>Indotestudo elongata</i> (Blyth, 1853).
19	<i>Testudo megalopus</i> Blyth, 1853	Type locality not mentioned in the original description; specimen registered as collected from the streets of Calcutta (= Kolkata, West Bengal State, E India)	ZSI 792 (holotype)	Subjective synonym of <i>Geochelone elegans</i> (Schoepff, 1794).
20	<i>Testudo parallelus</i> Annandale, 1913	'Chaibassa (Singhbhum) district, Chota Nagpur' (in Jharkhand State, E India)	ZSI 11379 (holotype)	Subjective synonym of <i>Indotestudo elongata</i> (Blyth, 1853).
21	<i>Testudo Phayrei</i> Blyth, 1853	'Arakan; Tenasserim Provinces' (= Rakhine and Taninthayi, W and S Myanmar)	ZSI 813 and 15492 (syntypes)	Current status: <i>Manouria emys phayrei</i> (Blyth, 1853).
22	<i>Testudo platynotus</i> Blyth, 1863	'Lower Pegu' (S Bago, S Myanmar)	ZSI 787-89 (syntypes)	Current status: <i>Geochelone platynota</i> (Blyth, 1863)
<b>Family: Trionychidae</b>				
23	<i>Emyda granosa intermedia</i> Annandale, 1912	'Near Purulia, Manbhum Dist.' (in West Bengal State, E India)	ZSI 16764-65 (syntypes)	Subjective synonym of <i>Lissemys punctata punctata</i> (Bonnaterre, 1789)
24	<i>Trionyx Buchanani</i> Theobald, 1874	'Bengal' (then comprising Bangladesh, West Bengal State, E India, as well as parts of E Bihar)	ZSI 1090 (holotype)	Subjective synonym of <i>Nilssonina hurum</i> (Gray, 1831).
25	<i>Trionyx gangeticus mahanadicus</i> Annandale, 1912	'Cuttack' (in Orissa State, eastern India)	ZSI 17014 (holotype)	Subjective synonym of <i>Nilssonina gangetica</i> (Cuvier, 1824)
26	<i>Trionyx nigricans</i> Anderson, 1875.	'Chittagong, Bengal' (in SE Bangladesh)	ZSI 664 and 1898 (syntypes)	Current status: <i>Nilssonina nigricans</i> (Anderson, 1875).
27	<i>Trionyx sulcifrons</i> Annandale, 1915	'Nagpur...Central Province of India' (in E Maharashtra State)	ZSI 17973 (holotype)	Subjective synonym of <i>Nilssonina leithii</i> (Gray, 1872)

## Plate 2



(A)



(B)



(C)



(D)



(E)



(F)

**Early curators and collectors of the Asiatic Society of Bengal, Indian Museum and Zoological Survey of India.** (A): Edward Blyth (1810–1873); (B): Ferdinand Stoliczka (1838–1874); (C): John Anderson (1833–1900); (D): Thomas Nelson Annandale (1876–1924) and

**Representatives of turtle types in the Zoological Survey of India.**

(E): *Testudo phayrei* (ZSI 814) (F): *Trionyx sulcifrons* (ZSI 17973).