

Animal Kingdom of The World

Volume-I

Fundamentals of World Zoogeography

S.K. Tiwari

Foreword by

Sureshwar Sharma

Vice Chancellor

Rani Durgavati Vishwavidyalaya, Jabalpur

Sarup & Sons

New Delhi-110002

confined to the Old world where it is widely distributed, and forms the counter Part to the procyonids of the New world.

Family Hyaenidae

The family contains 3 species of hyaena and aardwolf. 1 species of the family *Hyaena hyamea* inhabits most of India, southern Asia, west to shores of Mediterranean, Arabia and northern Africa. The remaining 2 species are confined to Africa.

Family Felidae

The family contains 4 genera & nearly 40 species of cats large and small. Members of the family are absent only from Antarctica and Australia.

Order Proboscidea

The largest land mammals form one of the smallest orders, with one family Elephantidae and 2 monotypic genera. The Asiatic elephant *Elephas maximum* is confined to India and South East Asia up to Sumatra. The African elephant *Laxodonta africana* inhabits whole of Africa south of Sahara.

Order Hyracoidea

The order contains a single family, the Provaciiidae with 3 genera and 11 species of small furry animal 5 about the size of rabbits. They are often said to be the nearest relatives of elephants Hyraxes are foundis Africa, Syriia, Palestiveandsouthern Arabia.

Order Perissodactyla

The order contains the odd toed hoofed animals. The perissodactyles were once a large order containing 12 families, most of which are now extinct leaving only 3 with living representatives. All three families contain species that are now rare and on the verge of extinction.

Family : Rhiocerotidae

Evolution of Rhinocarises

While hippomorphs, which ultimately gave rise to equids, diverged in many evolutionary lines, the ceratomorphs (Tapiromorphs) include only two super families Tapiroidea and shine cero toidea, The rhinoceroidea is represented at least by 4 families from Eocene onwards. The fourth rhinoceros family includes approximately 31

genera, spreadin time from Eocene to present day, together with the true rhinoceros of the holarctic pliocene and the African and Asian Regions. They have been considered by numerous authors, those of principal interest in this context being Abel (1910), Breuning (1923), Foreter Cooper (1934), Grangor and Gregory (1936), Masthew (1931, 32), Osborn (1900), Paterson (1920), Ring Storm (1927), Roman (1911), Scott (1941) and Wood (1941).

Rhinoceroses were abundant throughout the Tertiary in the northern continent, although only 5 species survive today. The family Hyracodontidae often referred as the 'running rhinoceroses' was the most primitive of these families. The Amynodontidae were hippopotamus like in their properties, and the sediments in which they are found suggest that they were amphibious forms living in rivers. Probably derived from hyracondontids, the rhinoceratids were the most diverse, abundant and complexly evolving of the super family. The largest of the known land mammals were the rhinoceratids, Baluchitherium and Indiricotherium, gigantic harmless animals of the Oligocene and early Pliocene Asia.

DISTRIBUTION OF LIVING RHINOS

Subfamily : Rhinocerdinae (Asialic rhinos)

All tend to be hairy even when adult. The horn or horns are short, the skin is thrown into folds superficially like armour plating, and there are long tusk lower canines.

Subfamily : Dicerotinae (African rhinos)

Dicerotinee are quite hairless except for the tail tip, ear rims and eye lashes, although white rhino youn are quite hairy up to the ages of 4 months. They also differ from Asiatic rhinos in having two long horns quite close one behind the other, in lacking front teeth and in having skin much less deeply folded.

Living rhinoceroses of the world

<i>Species</i>	<i>Distribution</i>
1. <i>Rhinoceros unicornis</i> (Great Indian rhinoceros)	South Asia
2. <i>Dicerohinus sumatrensis</i> or, <i>Rhinoceros sumatrensia</i> or.	Sumatra. Thailand

162 Fundamentals of World Zoogeography

<i>Didermocerus sumatrensis</i> (Sumatran rhinoceros)	Borneo
3. <i>Rhinoceros sondaicus</i> (Javam rhinoceros)	Java
4. <i>Ceratotherium simus</i> or, <i>Diceros Simus</i> (Javam rhinoceros)	Africa
5. <i>Diceros bicornis</i> (Black rhinoceros)	Africa

Rhinoceros Species Represented in India

Only a few decades ago all the Asiatic species of rhino were represented in India. Today excepting the great one horned Indian rhino (*Rhinoceros unicornis*) if representatives of other species still occur in Indian territory is quite doubtful. The present distributional account is after Mukherjee (1966), which is hardly tenable at present.

1. **Rhinoceros unicornis Linn** : Confined today to the eastern Terai area of North India, e.g. Chaiwan area in East Nepal and in isolated patches in Assam, e.g. Sibsagar district and Balipara frontier tract.
2. **Rhinoceros sumatrensis Fischer** : It is found in small numbers in scattered patches in Central and Lower Burma, e.g. in Myitkina district, the Arakan Hills, the Ragu Yomes, Katha district and lower Tenasserim. It is also found in small number in the Malay Peninsula, Sumatra, Java and Borneo. A few specimens possibly survive in Assam and Chittogong Hills (?) About 80 year ago it inhabited Assam, Bhutan and northern Bengal in India. Today practically it is exterminated from India, though a few specimens may still survive in the sub-Himalayan sanctuaries of Manas and Son Rupa in North Assam—this however requires confirmation. There is also a possibility of small number of isolated population in the Indian Lushai Hills and Chittagong hill tracts in Bangladesh.
3. **Rhinoceros sondaicus Desm** : This species is known to survive only in Malaya and Java. Whether it is still existent in Assam? needs confirmation.

Past Distribution

Pleistocene distribution of Asiatic two horned rhino is better

known than the other two species. This species (*Didermocerus sumatrensis*) was widely distributed, and ranged from the broad leaf forests of South Europe to N India. This species probably the first of the three Indian species to evolve is represented in Pliocene strata of Sikaliks. Javan rhinoceros (*Rhinoceros sondaicus*) probably evolved somewhere in South East Asia, where most of its fossils occur. It entered in India through Brahmaputra Pathway. The great Indian rhinoceros has an obscure geological history. It suddenly appears in Pleistocene times. It is possible that it might have come from N.W. route.

Decline of Indian Rhino's Range

Present range (Protected areas National Forests and Sancturies):

1. Chitawan
2. Rapti valley
3. Jaladpara
4. North Kamrup
5. Sona Rupa
6. Loakhowa
7. Kazirange

Almost all of the living rhinos are found in the above mentioned protected areas of South Asia. But a few heads may be surviving in unprotected forests of Assam.

Family Rhinocerotidae

The family contains 5 living species belonging to 4 genera. The family is distributed in South East Asia, Burma, Malaysia, some of the islands of Indonesia, and most of Africa south of Sahara.

Family Tapiridae

The family Tapiridae contains one genus with 4 species, one Asiatic and others south American. The peculiar discontinuous distribution is due to the family formerly being widespread in northern hemisphere; the extinction of many forms have left survivors which moved into the tropics separated on the opposite sides of the world.