f8 Artiodactyls < Gr *artios* even numbered, *daktylos* toes >

> You utter the name 'Chekhov' and people arrange their features as if a baby deer had come into the room.
>
> —Janet Malcolm, *Reading Chekhov: A Crtitical Journey*, 2001.[1]

Artiodactyls are ungulates (hoofed mammals) that are even-toed (cloven-hoofed). Evolution in the artiodactyl lineages involved the parallelism of lateral toe reduction and elimination. Toes two and three are retained in artiodactyls and the foot's axis passes between these.

Order Artiodactyla (171 species) is divided into two suborders:

1) Ruminants (horned) that include: sheep, goats, cattle, buffalo, bison, African and Asian antelopes (all of family Bovidae with non-deciduous horns); deer (with deciduous—from Latin: to fall off—antlers that are shed late winter or early spring); pronghorn (the American antelope, family Antilocapridae, which are not antelopes); and, giraffes.

   A study of 124 species of bovid and 39 species of deer, conducted by T. M. Caro in 2003, found no discernible influence on horn shape by environment. Complex racks (amazingly) are not uncommon in forest dwellers even though they have to dodge through dense vegetation.[2]

   Camelids (hornless): one-humped Dromedary or Arabian camels (*Camelus dromedarius*) now in Northern Africa; two-humped Bactrian camels (*C. bactrianus*), an endangered species now in Mongolia and China; and, llamas now in the Andes of South America.

   The camelids evolved in North America and, along with mammoths, mastodons, and horses, went extinct in North America in the late Pleistocene (10-20 thousand years ago).[3]

2) Pigs, warthogs, and peccaries

   Hippopotamuses (and whales—*see* Topic *f10*)[4]

These familiar living artiodactyls became numerous and varied during the Neogene.

Cattle's last wild ancestor, the fast-footed ferocious aurochs, died out in Poland during the 1600s.

Extant South American camelids are haphazard crossbreedings of domestic llamas and alpacas (which became the way 100 years after the Spanish conquest), and wild alpaca and vicuña that graze in the high Andes. The vicuña's fiber, the finest in the world, has a diameter of 12 micrometers.[5] According to a 2001 genetic study, reported by Jane C. Wheeler, the Inca, beginning 6,000-7,000 years ago, had separately domesticated the llama from the guanaco and the alpaca from the vicuña.[6]

Extant Old World camelids diverged into the (prone to kick, bite and spit) one-humped Arabian, and the (milder mannered) two-humped Bactrian, after they had migrated from North America 11 million years ago.

In the Paleogene, ancestors to the extant artiodactyls were small in stature and coexisted with a greater variety of artiodactyl genera that, at the time, were more successful, if larger size and greater specialization is the measure. By evolution's lottery, artiodactyl genera that were large during the Paleogene, were extinct by its end.

Systematic relationships of artiodactyls are still being worked out, and when Palaeodonta (extinct oreodonts and various other, mostly small in size, primitive, extinct "artiodactyl" groups) are included, artiodacty is certainly a character of a paraphyletic assemblage (for a definition of this term, *see* Figure *f35.1*, p. 380). ❑