

*Australopithecus*  
australopithecines  
Family Hominidae  
hominids

2 evolutionary lines of early hominids

History of Discovery

Charles Darwin, 1871

Raymond Dart, 1924, University of Witerwatersrand, Johannesburg, South Africa

Taung

*Australopithecus africanus* ("southern ape from Africa")

Robert Broom, 1936 -- 1940's

Sterkfontein: *Australopithecus africanus*.

Swartkrans and Kromdraai: *Australopithecus robustus* (*Paranthropus robustus*).

C. K. Brain

East Africa, Great Rift Valley

Olduvai Gorge, Serengeti Plain, Northern Tanzania

Louis and Mary Leakey

*Australopithecus boisei* (or *Paranthropus boisei*)

1.75 ± .25 million years ago

1974 Donald Johanson, Hadar, Afar Desert, Northern Ethiopia.

Lucy 40% complete female skeleton

Laetoli, N.Tanzania 3.7-3.5 million years ago

footprints

December, 1998, Ron Clarke, University of Witerwatersrand: remarkably complete skeleton of an australopithecine

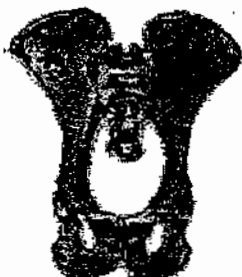
(*A. africanus*), Sterkfontein, South Africa. ca. 3.5 or 3.6 mya.

breccia rock

*Australopithecus garhi*. April 1999, Bouri, Ethiopia . have first to use stone tools and eat meat? 2.5 million years.

Tim White

*Ardipithecus ramidus* Aramis, Middle Awash, Northern Ethiopia



chimpanzee



*Australopithecus africanus*



*Homo sapiens*



1. *Ardipithecus ramidus*.
2. *Australopithecus anamensis*
3. *Australopithecus afarensis*
4. *Australopithecus africanus*
5. *Australopithecus robustus* (or *Paranthropus robustus*)
6. *Australopithecus boisei* (or *Paranthropus boisei*)
7. *Australopithecus aethiopicus* (or *Paranthropus aethiopicus*)

**Early Transitional Species**

*Australopithecus anamensis*. 4. 2-3. 9 mya, East Africa.

**Gracile Species**

*Australopithecus afarensis* 3. 9-3. 0 mya, East Africa (Hadar in Ethiopia and Laetoli in Tanzania).

*Australopithecus africanus*: second gracile species. 3. 0-2. 5 mya in both East and South Africa (e.g., Taung, Sterkfontein and Makapansgat)

**Robust Species**

*Paranthropus* (e.g., Kromdraai and Swartkrans)

*Australopithecus robustus*: South African robust species, 1. 9-1. 0 mya

*Australopithecus boisei*: super-robust East African species, 2. 3-1. 4 mya

*Australopithecus aethiopicus*: earliest robust species-- 2. 5 mya, East Africa

Gracile	Robust
4 - 4.5 ft. (60 lbs)	4.5 - 5 feet (100 lbs)
smaller c.c. 442 cc	larger c.c. 530 cc
more rounded braincase w/ more vertical forehead	flatter vault and flattened forehead
dish-shaped lightly built faces	sagittal crest (larger temporalis)
comparatively larger front teeth	larger back teeth (extreme crowding of ant. teeth rel. to front teeth)
smaller jaws	larger jaws

John Robinson; dietary hypothesis.

**Evolutionary Links**

