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Australopithecus afarensis

Australopitheus, meaning “Southern Ape,” was an early Hominin that originated in Africa. The name Australopithecus applies to a variety of hominin subspecies that all lived roughly during the same time and in the same place. There are two defined types, the “gracile” and “robust” Australopithecines, based on their diets and other defining differences. (Nelson et. al., 2019). The most famous and one of the oldest species of Australopithecine is Australopithecus afarensis.

The gracile-type Australopithecines had less exaggerated, less robust and smaller features in comparison to the robust group. (Nelson et. al., 2019). Australopithecus afarensis is the most well known of this type. The most famous individual of this species is a female known as ‘Lucy.’ Some evolutionary features of this species include canines and molars that are smaller than the average great ape, but larger than what is seen in modern humans. (Nelson et. al., 2019). This shows that the species ate a combination of meat and plants, and also that there was a lot of sexual dimorphism.

Australopithecus afarensis dated back to 2.9 millions years ago to 3.9 million years ago. They had a brain size of around 380 cc to 430 cc, much smaller than modern humans, who have on average 1500cc. They had strong muscles around their mouths and jaws, indicating a varied diet. They mostly ate plants, but occasionally ate small prey. This depended on what was in their current environment, and what they had to adapt to eating to survive. (Nelson et. al., 2019). There isn’t any evidence that Australopithecus afarensis used fire in order to keep warm or cook,

which would imply that they would have a decent amount of hair covering their bodies, and would likely prefer to eat plants, since obtaining raw meat would take too much energy to be worth to lost calories for the most part. Some popular discovery sites and specimens of this species were Lucy, the Dikika Child, and the site of the Laetoli Footprints. (Nelson et. al., 2019).

Australopithecus afarensis was primarily bipedal, as shown through the similarities of the pelvis and lower limbs to modern humans. The footprints of Australopithecus afarensis have no knuckle imprints with a clear foot arch and un-opposable big toes, some clear indications towards bipedalism. (Nelson et. al., 2019). Male Australopithecus afarensis likely were less arboreal, and spent more time on the ground, while the females spent more time in the trees. This is due to the males' larger sizes and more robust body types as compared to females. (Stern et. al., 1983). A. afarensis had adaptations for living in the trees, but there was still tons of evidence towards bipedalism. They had less hip and knee extension and mobility as compared to modern humans, but the evidence towards overall bipedalism was much stronger.

Australopithecus afarensis possibly used stone tools, but the evidence is highly debated between scientists. There were cut marks found on bones at Dikika, and dated back to the same time that Australopithecus afarensis lived. Basically the only true evidence of tool use in this particular species was that the sites of fossils and tools were discovered nearby, and dated to the same period of time. (Nelson et. al., 2019). If they did in fact make tools, they would be of the Oldowan type.

Bibliography

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