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THE ANT MEN

Eric North (Bernard Cronin)

About the Book

Bernard Cronin (1884 – 1968) was born in England but spent the majority of his life in Australia. Trained in agriculture, he eventually settled on a career in writing. Considering his academic training, it is not a surprise that he wrote a book centered on insects. *The Ant Men* (1955) is very much set in another era, but it is an engaging story. The novel has non-Australian characters. There is some light hearted banter in the book about national differences. Silas Orcutt, an American from the Smithsonian, is the quintessential professor (of mineralogy). His assistant is an Australian professor of geology named Dr Gregory Wise. They form a dynamic duo of academic prowess. Bill Carey (English) and Tod Grey (Australian, nicknamed “Jugs”) are two university students who supply some of the slapstick. The middle aged Nuggett Smith is a gruff

jack of all trades desert-dweller who will guide the team on a “semi-scientific exploration of the dead heart of the Australian continent.”

The target is to find purple obsidian, but the expedition soon finds more biological interests. The author notes in his introduction that: “Of the ant species, Australia had one of the largest and fiercest known. Wherever in this story any ant economy has been touched on, it has been carefully verified from the latest scientific pronouncements.” The basic premise of the novel is that there were giant insects in Australia in the past, and that the team was transported back in time by lightning. The team struggles to make sense of their new environment. It is Jugs who first proposes that a crocodile carcass they find bore the signs of being eaten by ants. His idea is taken up and debated by the two academics. Their conversations border on the absurd, as they can often engage in advanced cogitation at times of physical danger.

When the team first sees the “Ant Men,” they are surprised that they walk upright using two legs. They are missing the middle legs. The black soldiers can project formic acid from their mouths, and they only have one antenna in the middle of their forehead. Professor Orcutt notes that they (p. 53): “Remind me of a blown up lot of *Alta texana* ants out of the Arizona deserts. ... Certainly the consanguinity of ants and men is a powerful ancient one...I’d say *Formica sanguinea* gone mad, only there’s no red in them, only black. *Bothriomyrmex decapitans*. Maybe not.” For a mineralogist the Professor is quite interested in ants (assuming the first species he notes in the passage above is of the genus *Atta*). As so to the consanguinity (“blood relation”) of ants and humans that no doubt refers to social structure.

The Ant Men differ physically (they have different castes). The six foot tall black soldiers were encountered first. Then there are small grey ants without antennae (they are the neuters, the workers). There are also ants with “the air of authority or breeding.” These green ants are smaller than the soldiers. They are the “officers.” Professor Orcutt was captured from the camp and is taken back to the nest. He has a chance to examine the social structure in detail. Ant Men are involved in a war with the neighboring group of insects, who are giant praying mantises. They are at first concerned that humans are mantid allies. Professor Orcutt does his best to reassure the Ant Men they mean no harm. The Professor is able to communicate with his captors through gestures and symbols. He later uses his mind. He states that he participated in an ESP test at Duke University and achieved a very high score (p. 116). He learns that the red colored priests

and scientists of the colony form a tight caste. They serve or are served by a giant frog god who allows the Professor to live. The colony is also served in the nursery by yellow ants, which do not venture out of the colony. The Professor is then taken to a museum where evolutionary goal of the Ant Men is displayed. Not only do they desire to gain in size, they also want to come closer to the human form. This is the reason why he was saved and this is a reason why he will not be set free.

Eventually the Professor is re-united with the rest of the team. By that time they suspect that the red priests are hiding something from the rest of the colony. The priests do have a secret. They have formed an alliance with the mantises. The green officers and black soldiers oppose their plans. During the struggle the team sides with the officers and soldiers and fight the mantids. The team is allowed to escape because they had earlier saved a soldier literally from the clutches of a mantis. The Frog God is killed during the struggle, and as the team departs they see that that the priests and mantids have lost. Their return to the present took place in the same unexplained way as their journey to the past. In the scramble to get back, they lost what little proof they had of their adventures. In sum, this was a very interesting book that covered a huge amount in 175 pages.

Discussion Guide

1. Perhaps the first hint of large animals the team encounter are sounds at night. They heard something like the cracking of a whip (pp. 28-29). Black carpenter ants (*Camponotus pennsylvanicus*) as well as some other species can make faint crackling sounds that can be heard near a nest. Do real life ants use sound as a form of communication, or is this a product of movement?
2. On pages 32-33 the team finds a crocodile skeleton that had the smell of formic acid. The meat on the skeleton was eaten off and not burned off with acid. Ants produce small amounts of this acid (the Latin term *formica* means “ant”). The black carpenter ant can deliver a small amount with a bite. The *Formicinae* subfamily have reduced stingers, but can spray formic acid from an opening at the tip of the abdomen called acidopore. Do any of these ant species use formic acid for subduing prey, or is it only for defense?
3. Jugs keeps on thinking about the crocodile skeleton and suggests that it has been eaten by ants (p. 39). He is quickly reminded that they did not see any ants at the site, and that in

order to have such a strong smell of formic acid there must have been many ants. The team suggests that the acid could be due to stinging nettles. Was the team surprised when they first saw the Ant Men? Why is it unlikely that insects would grow so large?

4. The war in the novel is between ants and mantids. Do mantids normally eat ants, or is this an example of artistic license in the book?
5. On page 54 the soldiers are described as shooting a stream of formic acid from their mouths. How do real life ants use formic acid?
6. Soldier Ant Men can apparently vary the amount of formic acid they put in the stream or spray. They can anesthetize (pp. 70-71). Can real life ants do the same thing?
7. The eyesight of the Ant Men is debated by Professor Orcutt and Dr Wise (on p. 56). They suggest that ants do not see very well, and that their compound eyes function very differently from human eyes. The result is that they can see moving things, but; “anything holding still dodges their sight altogether.” Is this statement true for insects with compound eyes?
8. The ants in the novel cultivate bees and harvest their honey. They drink fermented honey and can become drunk (p. 141). Can ants in real life get drunk from alcohol?
9. In the book the individual members of the colony communicate with limb signals, a crack-like sound and especially extra sensory perception. How do real ants communicate with one another?
10. In the Carboniferous Period (roughly 360 MYA) giant insects existed in swamps. The best known example is a dragonfly with a 75 cm wingspan. What were the factors that allowed insects to grow so large during this period?