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**TERMITE HUNT**—African chimpanzees in the Tanganyikan wilds use stems as tools to fish termites out of a nest for food. The chimps were studied by Jane Goodall, a young English scientist, under a National Geographic Society grant.

## ANTHROPOLOGY

## Man Not Only Toolmaker

Chimpanzees in the wilds make drinking vessels from leaves, strip twigs to fish for termites and use leaves as napkins, behavior believed typical only of man—By Nancy Lawson

► THE DEFINITION OF MAN as the only creature capable of making and using tools must be redefined. A pretty English naturalist studying the habits of chimpanzees in the wilds of Tanganyika has watched chimps fashion and use crude tools.

Miss Jane Goodall, a student seeking her doctorate at Cambridge University, England, and working under grants from the National Geographic Society in the Gombe Stream Game Preserve, found that chimpanzees make an ingenious drinking utensil from large leaves.

A chimp will sip as much water as he can from a natural drinking bowl. Then he will pick up and crumple a large leaf, dip the leaf in the remaining water and suck the liquid from it.

The chimps will strip leaves from twigs which they use to fish termites out of their mounds.

The modification of a natural object turned to useful ends is a characteristic formerly attributed only to man. Miss Goodall believes that this skill must be learned by observation. She has seen the young chimps watch their parents and then make clumsy attempts to copy them. This learning is the beginning of cultural behavior.

Miss Goodall's three-and-a-half year study among the great chimps is a unique record. African game forests, the home of chimps, soon may be taken over by agriculture, robbing scientists of the opportunity to

study them. Knowledge of the chimps' behavior may help man understand the steps of his own beginnings.

Miss Goodall also was the first scientist to observe that chimpanzees, thought to be strictly vegetarians, kill and eat meat to supplement their diet of fruits and leaves. She has seen the males catch colobus monkeys and young antelopes which they often share with females and children.

Chimpanzees have a complex social system which includes close family ties. The youngsters are sheltered by the whole group, never scolded even by an adult male. But as they grow older, they learn to ask for rather than grab for another's food.

The chimps' personalities differ widely. Miss Goodall recalled one, David Greybeard, who is gentle and easy-going and another, Goliath, who is quick tempered and often comes to David's defense.

As a group, chimps are gentle, affectionate extroverts. Very fastidious, they love to groom each other. Miss Goodall has seen them use leaf napkins to wipe sticky fingers after eating.

### ASTRONOMY

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The slim young woman spent months alone in the forested mountains as the chimps became accustomed to her. She has heard them use more than 20 different vocal sounds to influence one another's behavior.

Five times Miss Goodall saw a chimp aim and throw stones to intimidate an enemy, just as early man may have done before he discovered that he could hit and kill with the stones he threw.

• Science News Letter, 85:191 March 21, 1964

## NUTRITION

## Some Freeze-Dried Food Better Than Canned

► **SHRIMP CREOLE** that has been frozen and dried, then prepared for eating tastes better than that available in cans or frozen.

So also do a few soups such as beef noodle and chicken noodle, food scientists for the Agricultural Research Service, U.S. Department of Agriculture, stated.

Several foods that have been frozen and then dried are now on the consumer market. They were sampled recently by a taste panel of agricultural scientists who rated beef, pork, chicken, seafoods, soups and mixed dishes, for their general tastiness. The foods were also rated for their appearance, flavor, juiciness, texture and tenderness. Of these, three scored better in eating quality than frozen or canned counterparts.

Considered about equal were 15 freeze-dried foods—some soups, creamed chicken, ham, sausage, Swiss steak and shellfish. Freeze-dried chicken and seafoods generally scored higher when used in prepared dishes than when served plain. Ten freeze-dried foods were rated poorer in eating quality.

In the relatively new freeze-drying process, food is frozen and then dried in a vacuum. The natural moisture in food is removed as vapor or gas, without going through the liquid stage.

A freeze-dried product weighs as little as one-tenth that of the original weight and contains only two percent moisture.

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