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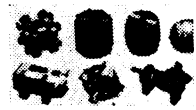
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BIOLOGY

Wolves Social As Dogs

Wolves, who have an organized social structure in packs, can be taught to be friendly to people—By Patricia McBroom

► WOLVES are as social an animal as dogs, two biologists have discovered.

If handled properly, they will form permanent bonds of affection with humans and can be socialized even after they reach adulthood.

In the wild their packs have a structure complete with social hierarchy, mating preferences, outcasts, specialized roles and distinct personalities.

Evidence for such wolf qualities came from Dr. George B. Rabb of Chicago's Brookfield Zoological Park and Dr. Jerome H. Woolpy of the University of Chicago.

They told SCIENCE SERVICE that wolves have every "social action" that has ever been attributed to dogs.

Dr. Woolpy said he has made friends of adult wolves by simply sitting rather passively in their cages for 10 minutes every day over a period of six months. After an initial period of terror and avoidance, the wolf begins to investigate, Dr. Woolpy said. This is the critical period, Dr. Woolpy said. If the man is too passive the animal will bite, if he is too aggressive, the wolf becomes frightened.

But by moving carefully, Dr. Woolpy was able to draw out positive, harmless affection. Always after that, when he entered the cage, he said, the wolf jumped with excitement, licked his face and gave friendly "muzzle-bite" greetings.

It seems these bonds of affection have to be established in the adult personality, the biologist said, because only then are they permanent. Though wolves are immediately friendly in infancy, unless they are handled consistently throughout the first year, they lose all socialization to humans.

Dr. Rabb, who for nearly a decade has been observing the wolf's social behavior in a two-acre natural enclosure at the zoo, said the wolf pack is marked by complicated social interaction.

The pack is led by a top male and a top female who do not necessarily mate with each other. Second in command are male and female number two, and so on down the line. They maintain this hierarchy even in play with the superior animal usually on top in a wrestle.

Each wolf courts the mate he or she prefers but success is never guaranteed, Dr. Rabb said. He now has among his 10 animals a male whom no female will accept.

Over the years, Dr. Rabb has observed a variety of personalities among

the wolves—a clown, a deadly serious character, a loner, a female who was so vicious she established absolute dominance over the rest of her sex, and a nursemaid who took up the trade probably because she was hounded by the others and needed a useful job.

Until her death two years ago, the vicious number one female terrorized all others of her sex, stated Dr. Rabb. With a series of body blows and leg-nippings, she became so dominant, she could control the others with no more than a look.

Male number one seems to assume a kind of "executive complex" when he becomes top dog, said Dr. Rabb.

There is also a clown in the pack, he said, who when frustrated will pounce in the snow or play with a pack of ice.

Another wolf has all the qualities of a loner and will probably end up as an outcast, Dr. Rabb predicted. Outcasts are hounded by the others and are either driven out of the pack or killed. This one will not participate while others court. He allows himself to be beaten in fights, although, if he wants to, he can easily establish dominance.

Also in the pack are two older, low positions females the rest like to torment. In defense, one became a nursemaid and is now left alone.

Another tack the social outcasts will take is to limp around on one leg, although there is nothing wrong with their legs, Dr. Rabb said. It is as if they are trying to garner sympathy.

Dr. Rabb said the few descriptions scientists have of wolf packs in the wild support his findings at the zoo.

MILITARY SCIENCE

Viet Nam Patrol Boat Tests Arms in U.S.

► A RIVER Patrol Boat (PBR) identical to those used by the U.S. Navy to keep the Viet Cong from crossing South Vietnamese rivers is now at work in Maryland, armed with .50-caliber machine guns and radar.

Capable of speeding at 25 knots even when fully loaded, the 31-foot craft is serving as a floating test bed for the Naval Ordnance Laboratory test facility in Solomons, Md. It is the only boat of its kind on the East Coast.

Though the PBR's hull is lightweight fiber glass, the crew is protected from enemy fire by armored decking.