

ABERRANT MATING ACTIVITIES OF THE CALIFORNIA WOODPECKER

By LOWELL ADAMS

At 4:55 p.m. on May 11, 1941, while driving on State Highway 168 about two miles southwest of Tollhouse, Fresno County, California, I noticed three California Woodpeckers (*Balanosphyra formicivora*) on the oiled pavement. These birds attracted my attention particularly because they failed to fly away as I passed about ten feet from them. I stopped about 150 feet from the birds and observed the following activities through 8-power binoculars.

One woodpecker, a female, was lying on her belly two feet from the edge of the pavement, just outside the course usually followed by the wheels of passing automobiles. This bird seemed to be injured. She occasionally lifted her head and opened her eyes but the head and eyelids soon drooped so that she again lay prone on the ground with eyes closed. Two other birds stood upright on the pavement beside the female. A third bird, soon joined by a fourth, was perched on a fence post about ten feet away, looking out across the top of the post in the "bartender" fashion characteristic of these birds. The last four birds were probably all males; at least two of them, which I later observed at closer range, were males.

Shortly after the binoculars were focused on them, one of the males hopped on top of the female, placing its feet in the middle of her back. Then he pecked several times in a rather gentle fashion at the base of her skull. The second male then hopped on the back of the first male while the latter was still on the female's back. This three-decker stance was maintained for about five seconds; then both males flew away. They returned almost immediately and repeated the performance. The second time one jumped on the female's back it seemed to attempt to copulate with her, appressing his vibrating tail feathers and cloacal parts down against the tail feathers of the female. Later a male tried to reach the prostrate bird's cloaca by turning partly over to one side and inserting its tail between the pavement and the female's tail. The pecking at the female's nape, described above, may have been an attempt to overbalance her forward so that her tail would be raised in a balancing maneuver, thus permitting easier access to her cloaca. Once as copulation was attempted it appeared to be successful, but I was not sure about this.

For thirty-one minutes the males continued to hop on and off the female. Sometimes they tried to copulate and at other times they merely stood. Whenever one moved to hop on, others seemed stimulated to do likewise. Those on the fence posts flew down and joined the activities. After about twenty minutes two birds flew away and did not return. The two that remained occasionally stood beside the female and looked about, then one or the other or both would hop onto her back again. Automobiles passing frequently about 10 feet from the birds usually failed to frighten them away. Automobiles traveling in the opposite direction usually drove within a foot or two of the female. The males always flew away when this happened and once the female exerted herself but succeeded only in turning her body about 180 degrees. Finally I went closer, to within 50 feet of the birds, and was then able to observe that the two active birds were males and the one lying on the pavement was a female. Also, more detailed analysis of the copulatory activities was possible at this close range.

At 5:26 p.m. I approached and picked up the female. She made no attempt to elude me. Lying under her was a freshly broken woodpecker egg, the shell of which was leathery and only partly calcified.

I took the female to the car. She showed no external indications of having been injured. She seemed to be extremely lethargic but was able to cling feebly to my hand with her feet. Then gradually she seemed to revive. After about ten minutes she showed signs of fear and made feeble attempts to escape by fluttering to the floor of the car and crawling under the seat. I retrieved her and held her while my wife drove. After driving about three miles we stopped and as the car door was opened, the bird flew to the ground. Then she flew rather awkwardly in a wide arc about 100 feet in radius. Finally she flopped into some tall grass with her wings outspread, and I picked her up.

The rest of the way home she rode in the glove compartment which was left ajar to admit air. We arrived home at 7:30 p.m. At that time the bird seemed almost fully recovered. She was placed in a small wire-mesh box trap which had been made for trapping ground squirrels. A few days later a larger cage in which she could fly about was constructed for her. The next morning after her capture she ate some acorns which were placed in the trap. Other acorns she poked through the wire mesh and among some rags in the bottom of the cage, apparently in an attempt to cache them. At 11 a.m. that day I put a jar of water in the trap and the bird immediately drank several mouthfuls as if she were extremely thirsty. The woodpecker appeared to be entirely normal again.

At the present writing, May 24, 1941, thirteen days after she was captured, she is still alive and apparently in good physical condition. She has eaten acorns, suet, piñon pine nuts, digger pine nuts, and almonds during her period of captivity. A log about six inches in diameter and four feet long was placed in her cage and she has pecked away about four cubic inches of wood from a partly decomposed area at one end. Once while she was engaged in pecking at the log I saw her stop and swallow something that looked like a grub. Twice I have seen her asleep and both times she had her head tucked out of sight, apparently under her scapulars. On one occasion she was perched on a vertical wooden surface inside the nest box. The other time she was perched on an inclined surface of the log.

In response to a letter of inquiry, Dr. William E. Ritter of the University of California replied that he considered the mating activities described above as coming "under the general head of maladaptive activities." Dr. Ritter discusses the social and phylogenetic significance of such activities in his book, "The California Woodpecker and I" (Univ. Calif. Press, Berkeley, 1938).

Fish and Wildlife Service, Sanger, California, May 24, 1941.