SODIUM PENTOBARBITAL AS AN ANESTHETIC FOR RACCOONS

An opportunity to assess the suitability of sodium pentobarbital as an anesthetic for raccoons (*Procyon lotor*) occurred during a study in which 10 animals were outfitted with radio-transmitter collars. Rausch (J. Wildl. Mgmt., 11: 189, 1947) used the drug on raccoons and other species and reported satisfactory results, but did not furnish details. He reported using a "recommended dose" of 1 grain (65 mg) of the drug per pound of animal, an apparent error since the manufacturer recommends 1 gr/5 lb of animal. The Manual of Wildlife Investigational Techniques, second edition (Mosby, ed., Edwards
Bros., Inc., Ann Arbor, Mich., 419 pp., 1963) perpetuates this error by listing the proper dose for raccoons as 143 mg/kg of animal and citing Rausch (op. cit.) as the authority. Erickson (Trans. N. Am. Wildl. Conf. 22: 520–543, 1957) found the manufacturer's recommended dose to be satisfactory on 32 black bears (*Ursus americanus*). Black, Hewitt and Severinghaus (N.Y. Fish and Game J. 6: 179–203, 1959) successfully used doses ranging from 7.0 to 19.9 mg/lb on 160 black bears.

In the present study, each of 10 raccoons was injected with a dose of sodium pentobarbital ranging from 6.0 mg/lb to 9.4 mg/lb. The commercial preparation Nembutal was used in concentrations of 50 and 60 mg/cc. Each animal was weighed, released from a live-trap into a large can, anesthetized with ether and injected intraperitoneally with sodium pentobarbital, usually in the mid-abdominal region. It was then returned to the live-trap where it regained consciousness within about 2 min.

Two of the 4 individuals injected with from 6.0 to 7.5 mg/lb remained conscious for 20 min and were then administered additional doses. The animal given 6.0 mg/lb received a booster of 3.0 mg/lb and lost consciousness in 3 min. The other, originally given 7.5 mg/lb, lost consciousness 10 min after receiving an extra 1.5 mg/lb. Doses of 8.0 to 9.4 mg/lb were considered the most satisfactory. They anesthetized animals in 6 to 11 min and rendered them safe to handle for 1/2 to over 3 1/2 hr. After such periods, animals could no longer be handled but would remain groggy for several more hours if left unstimulated. Neither reaction time nor period of anesthesia appeared to be correlated with weight or sex of animals.

The study animals were released where captured, and continual radio contact was maintained with all but one for several weeks; no undesirable after-effects of the drug were noticed. This anesthetic appears to be ideal for use when light surgery, tagging with radio collars or other involved procedures must be carried out on raccoons.

I wish to acknowledge financial support of the USAEC contract No. AT(11-1)-1332 (Document coo-1332-26) and the USNIH Training Grant No. 2T1AI 188-03.—L. DAVID MECH, Minnesota Museum of Natural History, University of Minnesota, Minneapolis. Accepted 8 February 1965.