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USE OF THE PALMER GUN TO IMMOBILIZE EUROPEAN BISON

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Seven tests were made on two individuals of European bison by administering doses from 300 mg to 5000 mg of the Cap-Chur-Sol preparation. The Palmer gun was used for injecting. The results obtained justify the assumption that this preparation can be used for immobilizing European bison by remote controlled injection.

Since June 1965 the Warsaw Zoo has owned a Palmer gun (Cap-Chur-Projector) which has made it possible to begin a series of tests on its use for immobilizing European bison, using the following standard preparations: (1) Cap-Chur-Sol — containing nicotine alkaloids, (2) Cap-Chur-Barb — containing barbiturates, (3) Cap-Chur-Gem — containing barbiturates and nicotine alkaloids.

The author's own observations up to the present on the use of the Palmer gun for European bison covered 9 cases, the first two of which were aimed at observing the reactions of the animal to the Palmer gun itself. Normal saline solution was used for injection in one case, and tranquilline in the second. These preliminary tests showed that the European bison on which the experiments were carried out were not frightened, and the movements they made due to the needle remaining in the body with the syringe still attached were not violent.

In the remaining 7 cases the Cap-Chur-Sol preparation was given in varying doses. Tests were made on two European bison, using doses of 300 mg to 5000 mg of the preparation per animal. With doses of 300 mg, 1000 mg and 2500 mg there was no visible reaction on the part of an animal weighing about 400 kg.

Using doses of 3000 mg, 3300 mg and 4000 mg for the same animal the following were observed: muscle tremor, salivation, accelerated respiration, weakened and retarded reaction to stimuli (such as approaching the animal, touching it with a stick). The above symptoms appeared from 10 to 20 minutes after injection, and disappeared after this time gradually and fairly rapidly, so that from 30 to 40 minutes after injection no changes could be observed in the animal's behaviour. A 5000 mg dose administered to the 14-year old bison »Pomruk« resulted in the animal collapsing (in the transport cage) some 6 minutes after injection and its immobilization, which made it possible to administer narcotics. In this case no data are available as to the duration of muscular paralysis. This animal was killed during the course of the experiment.

The small number of tests made with only one preparation, and on two individuals only, did not of course permit of establishing the amount of preparation necessary in respect of this species to achieve complete immobilization of the animal. The tests so far made, however, justify the assumption that the preparation named Cap-Chur-Sol can be used for immobilizing European bison by remote controlled injection.

There are no data in the literature to which I had access on the application of the preparations mentioned at the beginning of the article for immobilization of European bison.

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