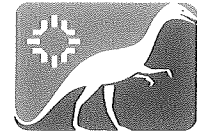


2 September 1992



NEW MEXICO
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Dear Jan:

As I explained to you over the telephone, we had some unexpected events in our netting in the Animas Mountains that resulted in the unfortunate death of 5 *Leptonycteris*, but at the same time provided us with a wealth of very welcome information on the natural history and status of this genus in New Mexico. Dr. J. Scott Altenbach (Univ. of New Mexico) and I are preparing a report for publication; I wanted to provide you with this preliminary information for your immediate use.

On the night of 26 August 1992, Scott and I set up three mist nets over and around the waters of Gibson Tank, 1.7 mi. S, 3.9 mi. E Animas Peak, Hidalgo Co., New Mexico, 1775 m. Previous to this night, I had netted unsuccessfully for *Leptonycteris* around tanks in the southern part of the Animas. We were netting for two species of *Lasiurus* (= *Nycteris*) that had been caught here previously, and that Scott needed for photography. We had absolutely no expectation of catching *Leptonycteris* here: 1) there was only one specimen known from the Animas, and only 20 from all of New Mexico (all listed as *L. curasoae* (= *sanborni*, = *yerbabuena*); 2) the single specimen from Animas was already a high-elevation record for the species, and Gibson Tank is higher still; 3) despite previous efforts by others at this tank, *Leptonycteris* had never been taken here; 4) this was past the date for any *Leptonycteris* capture in the state, and they were supposed to have already moved south; and 5) Scott, among others, doubted that *Leptonycteris* drinks, getting all of their water instead from nectar, and so would be unlikely to capture over water anyway.

For these reasons, we were very shocked when the first bat, at 2020 hrs., was a *Leptonycteris*! Events rapidly became stranger still: our nets were soon inundated with *Leptonycteris*. We stopped counting at about 50, and estimate that we caught well over 100. Meanwhile, the air was filled with large bats, undoubtedly *Leptonycteris*. Further, we immediately noticed that there were bats of two obvious sizes, and both sexes of both sizes. We concluded that we were netting both *L. curasoae* and *L. nivalis*, which had previously been reported in the U.S. only from Big Bend in Texas. We

Hafner to Harp, USFWS, 2 September 1992
p. 2

estimate that the ratio of *curasoae* to *nivalis* was about 2:1, with more of the latter being taken in a net strung across the very face of the dam, in a narrow flyway between willows. Oddly, although we observed numerous bats in the air, we never saw a bat drinking, although this is commonly observed when netting other species. Could the bats have been using the pond as a geographic reference point at which to gather?

The first *Leptonycteris* (first hour?) were free of pollen; thereafter, they were loaded with yellow pollen, we assume from the agave that were still blooming throughout the surrounding hills.

In addition to the 100+ (conservatively) *Leptonycteris*, we netted only five other bats: 2 *Myotis* cf. *californicus*, 1 *Plecotus townsendii*, and 1 *Tadarida brasiliensis*.

Although Scott and I have had lengthy experience in netting, the numbers of bats hitting at the same time, coupled with their heavy weight and their tendency to flip and roll in the net, resulted in some bats being submerged in the lower net panels. As happens when hit with sudden high numbers, it is impossible to take nets down: the bats are hitting around you as you work to release captured bats. Before we could prevent further accident, five bats drowned: three *curasoae* and two *nivalis*. All will be retained in the permanent collections of this museum; I have already notified USFWS Law Enforcement and New Mexico Game and Fish, as required under my federal and state salvage permits. I will have sex and measurement information on them later today, after I prepare them. Frozen tissue will be retained from all of them for use by qualified researchers.

We have subsequently discovered that there actually was an unpublished record of *L. nivalis* from New Mexico: Mike Bogan apparently netted one in the Peloncillo Mountains some years ago, and it was detected in the collections at the Museum of Southwestern Biology, UNM, by Reg Hoyt. However, Hoyt's manuscript on the record was unfortunately rejected for publication by the *Journal of Mammalogy*. (We will contact Reg and get him in on this publication, combining the two.)

Although the deaths of five *Leptonycteris* are unfortunate, we have gained a good deal of information: 1) the genus is far more numerous in this area than previously thought; 2) both species occur in the area, further supporting Arita's

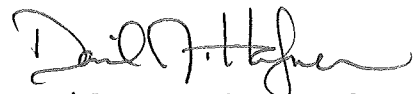
Hafner to Harp, USFWS, 2 September 1992
p. 3

observation (*J. Mamm.*, 72:706-714, 1991) of broad sympatry between the two species across Mexico; 3) both sexes of both species are present in New Mexico in late August; 4) as this higher elevation record indicates, the genus probably occurs throughout the Animas, as high as agave exists (i.e., to the highest points); and 5) we have an interesting mystery as to why these bats were suddenly netted, and in huge numbers, over this pond, and why they were not observed to be drinking.

Clearly, we need to know a great deal more about what these bats are doing, and I hope that you encourage more research on this fascinating species. I hope that your agency does not consider the accidental deaths as reason to limit netting: the number of deaths have to be viewed in light of the number netted and observed, and the information obtained. For example, it would have been highly instructive to have set up a single net at the same tank for subsequent nights: was this a single event? Also, was the water itself important, or were the bats simply using the canyon as a flyway, and would a net up or down canyon have caught just as many?

I trust that this information is of use to you; we will certainly provide you with a copy of our manuscript as soon as it is prepared. Thank you again for your efforts in providing permission to net *Leptonycteris*: I hope you agree that the payoff in terms of knowledge gained was indeed great.

Sincerely,



David J. Hafner, Ph.D.
Curator, Vert. Zool.