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 No. XXVII.

*Supplement to the account of the Dipus Americanus, in the IV. Vol. of the Transactions of the Society. See No. XII.*

Read Dec. 16th, 1803.

IN the 4th volume of the Transactions of the American Philosophical Society, I have given an account of a new species of Dipus, or Jerboa. When that paper was presented to the society, I was not able to say, with absolute confidence, though I thought it highly probable, that the animal which I described was one of the lethargic species of Glires, or those species which pass the winter-season in a torpid state. I have now completely satisfied myself, that the *Dipus Americanus* does go into the torpid state, in the neighbourhood of Philadelphia.

In the month of August, 1796, one of these little animals was brought to me from the vicinity of this city. It was put into a large glass jar, where I was so fortunate as to preserve it for near four months. Though it made many efforts to escape from its confinement, it seemed, upon the whole, pretty well reconciled to it. It continued active, and both ate and drank abundantly. I fed it upon bread, the grain of Indian corn (*Zea Mays*), and the berries of the *Prinos verticillatus*, sometimes called black-alder.

On or about the 22d, of November, it passed into the torpid state. It is curious to observe, that at the time it became torpid, the weather was unusually mild for the season of the year, and moreover the animal was kept in a warm room, in which there was a large fire the greater part of the day and night. I sometimes roused it from its torpid state; at other times it came spontaneously out of it. During the intervals of its waking, it both ate and drank. It was frequently most active, while the weather was extremely cold in December; but when I placed the jar upon a thick cake of ice, in the

open air, its movements or activity seemed wholly directed to the making of a comfortable habitation out of the hay with which I supplied it. It was sufficiently evident, however, that the cold was not the only cause of its torpid state. It was finally killed by the application of too great a degree of heat to it, whilst in its torpor.

During its torpor, it commonly laid with its head between its hind legs, with the claws or feet of these closely applied to the head. Its respiration could always be perceived, but was very slow.

The fact of the torpidity of this little animal is known to the gardeners and others near the city. They call it the "seven-sleepers," and assert, that it is frequently found in the earth, at the lower extremity of the horse-radish, and other perpendicular roots. Does it use these as a measure of the distance to which it shall go in the earth, to avoid the influence of the frost?

I have said, that the *Dipus Americanus* becomes torpid in the neighbourhood of this city. But this, I believe, is not always the case. During the winter-season, this little animal and another species, which I call *Dipus mellivorus*, take possession of the hives of bees, in which they form for themselves, a warm and comfortable habitation, having ingeniously scooped away some wax. The materials of its nest are fine dry grass, down or feathers, and old rags. It lives upon the honey, and seems to grow very fat upon it. I believe two individuals, a male and a female, commonly inhabit one hive. They sometimes devour the greater part of the honey of a hive.

The circumstance just mentioned is not altogether uninteresting. It plainly proves what I have, long since, asserted, that the torpid state of animals is altogether "an accidental circumstance," and by no means constitutes a specific character. The same species becomes torpid in one country and not in another. Nay, different individuals of the same species become torpid, or continue awake, in the same neighbourhood, and even on the same farm.

BENJAMIN SMITH BARTON.