

drawing was taken, during the resting state of the animal, from above, from the oral surface.

- Fig. 8.* Mother-generation (B) from the side. The animal was drawn while irritated by the pressure of the glass cover. The eight superior and eight inferior radial tentacles are bent upwards and conceal the proboscis with the mouth, while the four superior (lateral) and the four inferior short, clavate feelers project below. The endoderm of the central and two lateral gastral cavities is perceptible through the transparent ectoderm, as also the axial cavities in the tentacles.  $\times 8$ . (Compare figs. 6, 11, 12, 13, and 15).
- Fig. 9.* One of the paired daughter-forms ( $B^1$ ) produced by the halving of the mother, shown in figs. 7 and 8. In a state of rest from the oral side. Eight radial tentacles and four feelers, two of which are longer than the others.  $\times 10$ .
- Fig. 10.* The same form from the side, showing the insertions of the tentacles, with the continuations of the gastral spaces. The proboscis with the mouth is below; above are the four feelers, laterally the eight radial tentacles.  $\times 10$ .
- Fig. 11.* The same form from the side, in a state of rest, standing upon all the twelve tentacles. The body is lifted up and the proboscis directed upwards.  $\times 10$ .
- Fig. 12.* First form ( $B^2$ ) of the grandchild-generation, with four long radial tentacles and two feelers. This form has been produced from the lower half of the daughter  $B^1$ , shown in fig. 9.  $\times 12$ .
- Fig. 13.* Second form ( $B^2b$ ) of the grandchild-generation, produced from the upper half of the same daughter-form (fig. 9), with shorter tentacles than the form  $B^2$  (fig. 12). While being drawn the four radial tentacles, directed upwards, were slightly retracted\*.
- Fig. 14.* Second mother-generation ( $aB$ ) with the tentacles thrown off, their places of origin being indicated by the lateral and basal tubercles of new tentacles in course of formation.  $\times 10$ .
- Fig. 15.* The same specimen drawn thirty-six hours later, with twelve newly-formed tentacles on the aboral side, and twelve tubercles of increased size, which in the sequel will grow into lateral radial tentacles and feelers.  $\times 18$ .

XIV.—*Description of a new Species of Vesperugo from North America.* By G. E. DOBSON, M.A., F.R.S.

*Vesperugo Merriami*, n. sp.

Smaller than *Vesperugo pipistrellus*, with which it agrees in general subgeneric characters; ears shorter than the head, shaped somewhat like those of that species, but the outer margin of the conch is much less deeply emarginated, and the projecting part of the lower half of the same margin is folded backwards; tragus broad, the outer side of its upper half

\* Similar specimens were observed by Owsianikow and Grimm, and figured by them with abnormally extended and already somewhat macerated tentacles.



evenly convex to the broad tip, the internal margin concave, at the base of the outer margin a longitudinally-directed lappet, succeeded above by an emargination, above which the outer margin is evenly convex; pollex short, feet very small, postcalcaneal lobule shallow, extreme tip of the tail alone projecting; the interfemoral membrane is naked above, except at the root of the tail, beneath a few short hairs appear along the transverse lines: fur pale yellowish brown on both surfaces, paler beneath, the basal half or more of the hairs dusky; margin of the wing-membrane from the last finger to the foot whitish.

Upper incisors unicuspidate (as far as can be seen from a single specimen), the inner one on each side much longer and thicker than the outer, which is close to it; lower incisors placed in the direction of the jaws; first upper premolar very small, in the angle between the canine and the second premolar, and not visible from without, although the cusp of the second premolar is widely separated from that of the canine owing to the projecting anterior part of the cingulum of the former tooth; the first lower premolar is much shorter than the second, which considerably exceeds in height the cusps of the molars.

This is the smallest species of the subgenus yet described, the forearm scarcely exceeding an inch in length. That the single specimen known is full-grown is proved by the worn state of the teeth and perfectly ossified condition of the finger-bones. It somewhat resembles *V. abramus* of the Old World, but may be at once distinguished by its unicuspidate upper incisors and by the lower incisors being placed in the direction of the jaws, by the shape of the second upper and lower premolars, by the small size of the first lower premolar, by the very differently-shaped tragus, and finally by the conspicuously small size of the animal. The discovery of this species is of peculiar interest, as it belongs to a subgenus which, though largely represented in the Old World, is very restricted in the New.

Length (of an adult male): head and body 1''·5, tail 1'', head 0''·5, ear 0''·38, tragus 0''·18, forearm 1''·05, pollex 0''·15, middle finger 1''·6, fifth finger 1''·2, tibia 0''·4, foot 0''·2.

*Hab.* North America (Locust Grove, State of New York).

I have much pleasure in connecting with this very interesting species the name of its discoverer, Dr. Clinton Hart Merriam, author of the 'Mammals of the Adirondacks,' who has done so much to extend our knowledge of the mammalian fauna of the Nearctic Region.



Dobson, G. E. 1886. "Description of a New Species of Vesperugo from North America." *The Annals and magazine of natural history; zoology, botany, and geology* 18, 124–125.

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