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Chris Maser

and

Cheri Brown

Puget Sound Museum of Natural History

University of Puget Sound

Tacoma, Washington

Bacula of Two Western Moles

Bacula have not been described in North American moles, genus *Scapanus*. They have probably been overlooked due to their small size and their extreme distal position within the glans (Fig. 1). The purpose of this paper is to describe bacula from the Townsend mole, *Scapanus townsendi* (Bachman), the coast mole, *Scapanus orarius* True, and to compare these with the baculum of the European mole, *Talpa europaea* L., described by Didier (1951, *Etude systematique de l'os penien des mammiferes. Mammalia* 15:11-22).

The bacula of both *S. townsendi* and *S. orarius* are considerably smaller in all respects than that of *T. europaea* (Table 1). The baculum of *T. europaea* has a relatively straight surface and a swollen proximal end which tapers toward the distal end. Dorsally, the bone of *T. europaea* curves slightly to the right; the proximal end has a "V"-shaped protuberance. The lateral surfaces are slightly hollowed; the venter is flat with an irregular surface. The distal extremity tapers and ends in a very small, rounded tip. The bone is relatively smooth except for the granulated proximal end (Didier, *op. cit.*).

There is much overlap in size of bacula between the two species of *Scapanus*. However, the bacula of six *S. townsendi* have an average length of 0.42 mm and an average width of 0.27 mm, while those of five *S. orarius* have an average length of 0.48 mm and an average width of 0.22 mm. The bone of *S. townsendi* has an average (width to length) ratio of 1:1.63 and that of *S. orarius* has an average ratio of 1:2.30; the bone of *T. europaea* has a ratio of 1:3.50 (data from Table 1).

Bacula of *S. townsendi* and *S. orarius* are relatively transparent and not uniform in size or shape between individuals of the same species. Therefore, it is doubtful that these bacula are taxonomically significant on an individual basis.

Material Examined

Scapanus townsendi—10 mi. W Junction City, Lane Co., Ore., #CM 1918, 1934, 1973; 11 mi. W Junction City, Lane Co., Ore., #CM 2112; 1¾ mi. S Bandon, Coos Co., Ore., #CM 2272; 1 mi. SE Key Center, Pierce Co., Wash., #MLJ 5213; *Scapanus orarius*—10 mi. W Junction City, Lane Co., Ore., #CM 1898; 1¾ mi. E Bandon, Coos Co., Ore., #CM 2307; 4 mi. SE Bandon, Coos Co., Ore., #CM 2414; 10 mi E Brookings, Curry Co., Ore., #CM 2469; 1 mi. SE Key Center, Pierce Co., Wash., #MLJ 5214. All specimens are in the Puget Sound Museum of Natural History.

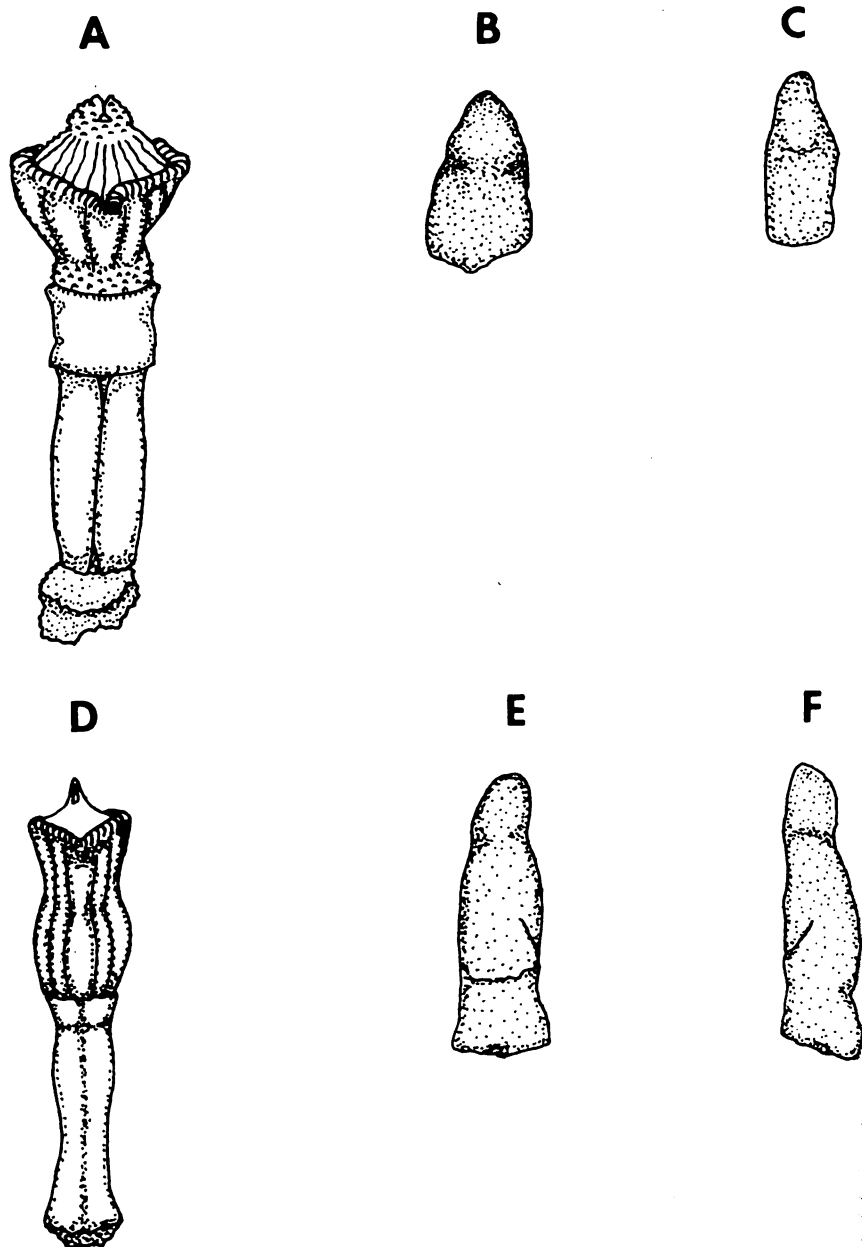


Figure 1. Penis and baculum of *Scapanus townsendi* and *Scapanus orarius*. A, penis of *S. townsendi*, CM 1934, X5.1; B, baculum of *S. townsendi*, CM 2112, X77, dorsal view; C, baculum, CM 2112, X77, lateral view; D, penis of *S. orarius*, CM 2469, X4.3; E, baculum of *S. orarius*, CM 2307, X85, dorsal view; F, baculum, CM 2307, X85, lateral view.

TABLE 1. Measurements of bacula from adult moles.

Catalog Number	Species	Greatest Length in mm	Greatest Width in mm
—	<i>Talpa europaea</i>	3.50	1.00
CM 1918*	<i>Scapanus townsendi</i>	0.36	0.28
1934		0.38	0.23
1973		0.44	0.18
2112		0.36	0.19
2272		0.59	0.42
MLJ 5213**		0.38	0.34
CM 1898	<i>Scapanus orarius</i>	0.32	0.20
2307		0.47	0.16
2414		0.58	0.25
2469		0.52	0.34
MLJ 5214		0.53	0.17

*CM=Chris Maser.

**MLJ=Murray L. Johnson.

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