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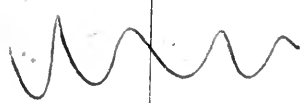
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PRELIMINARY DESCRIPTIONS
OF NEW RODENTS

FROM THE

OLYMPIC MOUNTAINS

BY

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CHICAGO, U. S. A.

February 1, 1899.

PRELIMINARY DESCRIPTIONS OF NEW RODENTS FROM THE
OLYMPIC MOUNTAINS.

Sciuropterus alpinus olympicus.

Type. Happy Lake, Challam Co., Olympic Mountains ; about 5,000 feet. Collected Sept. 9, 1898.

Characters. Similar to *S. a. fuliginosus* Rhoads, but larger and very much darker coloration.

Color. Head, back, shoulders and sides, blackish-slate — almost pure black, the hairs tipped with rust color; in no way resembling the broceoli-brown of Rhoads' sub-species, and giving the upper part a rusty hue. Wing membranes jet black on their outer half, edged with white, inner half like back. Basal portion of tail, above, grayish-fawn, growing dark toward the end, which is a dark smoky gray; beneath buff, with a central line of dark gray. Entire under surface of body and flying membrane, bright buff, slate color of under fur showing through; legs and feet, dark reddish brown; ears, dark brown, inclining to blackish at the edges, nose and stripe to eye, and ring around eyes, black: sides of face, gray.

Cranial Characters. Skull long for its width, being 41 mm. from occiput to end of nasals, and 19 mm. greatest width; nasals, 12 mm.; tooth row, 9.

Measurements. Total length, 346 mm.; tail, 164; hind leg, 38; flying membrane, across shoulders, extended 200 mm.

Phenacomys olympicus.

Type. Happy Lake, Challam Co., Washington. Altitude about 5,000 feet. Collected August 14, 1898.

Smaller than *P. orophilus*, but with a comparatively longer tail, and with a darker colored pelage.

Color. Upper parts dark cinnamon, grizzled with tawny ochraceous; slightly paler on the flanks. Under parts whitish, slightly darkened by the plumbeous of the under fore, legs and feet white. Tail above same color as the back, beneath white. Ears short, covered thickly with hair, and colored like the upper parts.

Cranial Characters. Brain case longer and narrower than that of *P. orophilus*, the frontals narrower and the orbital construction greater. Nasals shorter and narrower posteriorly. The basioccipital is very much narrower at its junction with the basisphenoid than is seen in the skull of the species compared, and the pattern of the teeth is somewhat different. I hope to give an illustration of this skull in the paper that will be published on the collection.

Measurements. Type. Total length, 125 mm.; tail, 27; hind leg, 15; ear, 10. The largest specimen measures 150 mm; tail, 31; hind leg, 15; ear, 9; and the average of five examples is, total length, 100.60; tail, 27.6; hind foot, 14.7; ear, 10.

Microtus (Lagurus) pumilus.

Type. Happy Lake, Olympic Mountains, Challam Co., Washington; about 5,000 feet. Collected August 18, 1898.

Characters. Apparently the nearest described species to the present one is *M. curtatus* Cope. That, however, is much larger and lighter in color. The tail of the present species is longer than that of *M. curtatus*. Ears small, hidden in fur.

Color. Entire upper parts and sides, a grizzled blackish brown and dark russet, in certain lights the latter color predominating; beneath whitish, with the plumbeous under-fur showing conspicuously; feet and legs, white; tail, above blackish brown, beneath white.

Cranial Characters. Skull, similar to that of *M. curtatus*, but smaller, with relatively less wide frontals and less anterorbital construction. Palate narrows considerably anteriorly. Auditory bullæ very large.

Measurements. Total length, 92 mm.; tail, 21; hind leg, 13; ear, 5. Measurements of *M. curtatus* compared are as follows: Total length, 105 mm.; tail, 17; hind leg, 22; ear, 9.5.

Peromyscus akeleyi.

Type. Johnson's Ranch, Elwah River, Olympic Mountains, Washington. Collected July 31, 1898. ♀

Characters. Belonging to the *Boyllii* group, but of smaller size and smaller ears and shorter tail than the majority of *T. boyllii* specimens.

Color. Adult, male; upper parts rich brownish-fulvous, brightest on the flanks; dorsal area much darker, inclined to blackish; flanks, under parts, legs, and feet pure white, making a strong contrast between the upper and lower parts. Ears, furred outside at the base, same color as the head; rest of ears naked, purplish-brown; an indistinct black ring around the eye; tail, dark brown above, pure white beneath.

Cranial characters. Compared with *P. boyllii*, the skull has the brain case less square, with a more gradual contraction at the orbital region, and with comparatively longer nasals, auditory bullæ much smaller, a narrower and shorter pterygoid fossa, and slightly shorter palate, molars larger, tooth row, 4. mm.

Measurements. Total length, 185 mm.; tail, 99; hind feet, 21; ear, 15. The tails varies greatly in length among individuals, ranging among the specimens before me from 89 to 112 mm.

Remarks. The type described above is an old male, and represents only the color exhibited by any adult individual, and perhaps on that account does not represent the species in its general appearance as well as a younger animal would. The usual style is much darker, the dorsal area almost black, and the side dark buff, with little or none of the bright fulvous tint. In its general aspect, it is a very dark mouse; with *P. heeni*, *P. macrorboricus*, and *P. sitkensis*, it does not seem comparable.

Microtus morosus.

Type. Boulder Lake, Challam Co., Olympic Mountains, Washington; about 5,000 feet. Collected September 11, 1898.

Characters. Resembling somewhat *M. serpens*, Merr. from British Columbia, but not of so red a hue, and darker than *M. bairdi* Merr. from Crater Lake, Oregon, as described, and differing from both in having a longer and unicolor tail.

Color. Upper parts dark brown, hairs tipped with fulvous, this latter hue tinting the entire upper part of the body; sides, same as back; under parts, plumbeous, with, in certain lights, a silvery gloss; feet and legs, brownish white; ears, same color as head and back, and almost hidden in fur; tail dark brown, changing to silvery in certain lights, with hardly any perceptible difference between the upper and under sides.

Cranial characters. Skull, as compared with that of *M. serpens*, is similar, but much less in the length of the zygomatic arch, a greater constriction of the frontals anteriorly, and smaller auditory bullæ.

Measurements. Adult; total length, 136 mm.; tail, 35; hind leg, 15; ear, 7; average length of tail of five specimens, 34.50 mm.

Remarks. The young in some instances have bicolor tails, but the under side apparently grows darker as they get older, until in the adult both sides are practically of the same color. The tail is apparently considerably longer than those of any of the allied species, save *M. oregoni* Bach, whose tail exceeds that of *M. morosus* by 8 mm., average.

Zapus imperator.

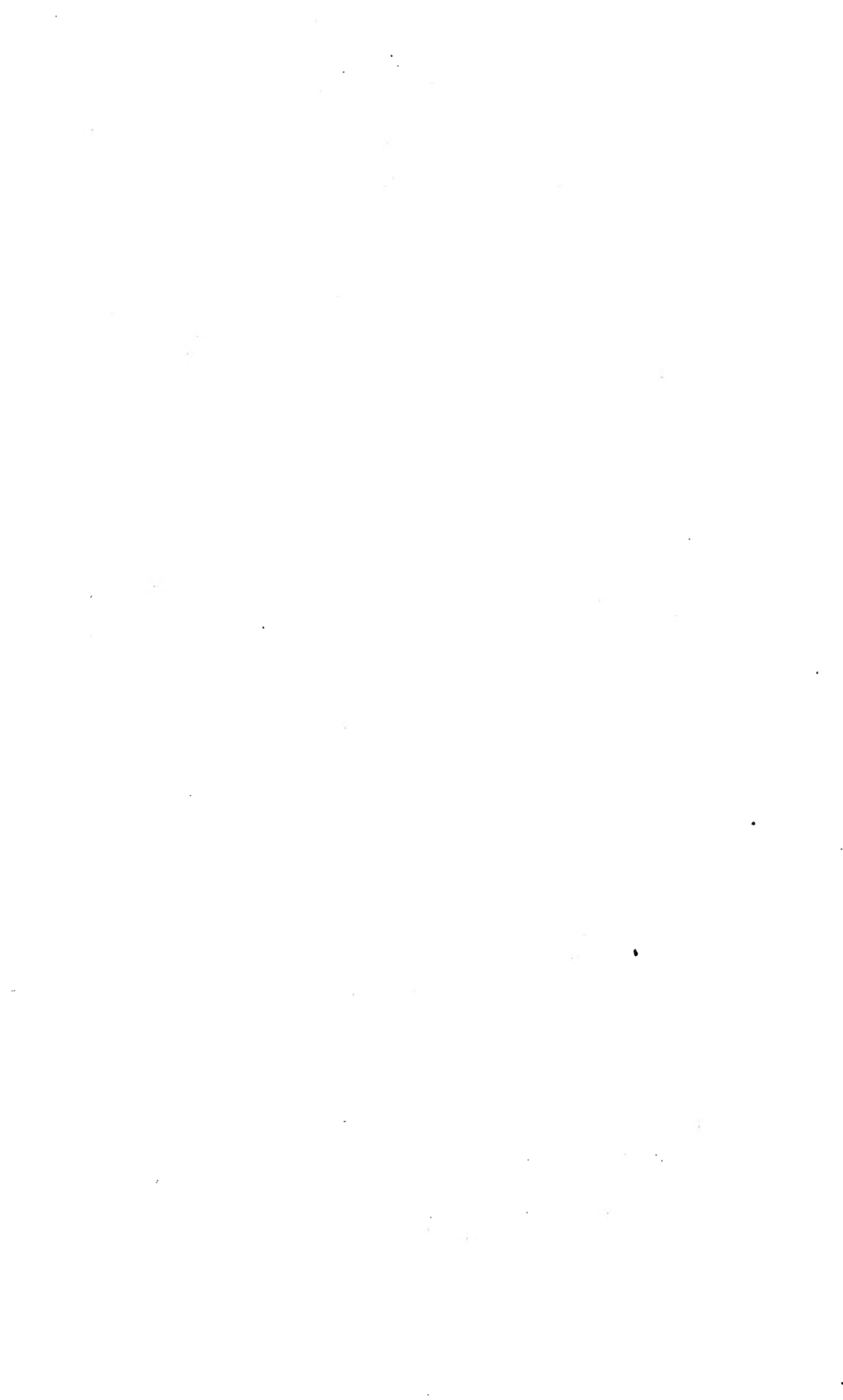
Type. Sieg's Ranch, Elwah River, Challam Co., Washington. Collected July 29, 1898.

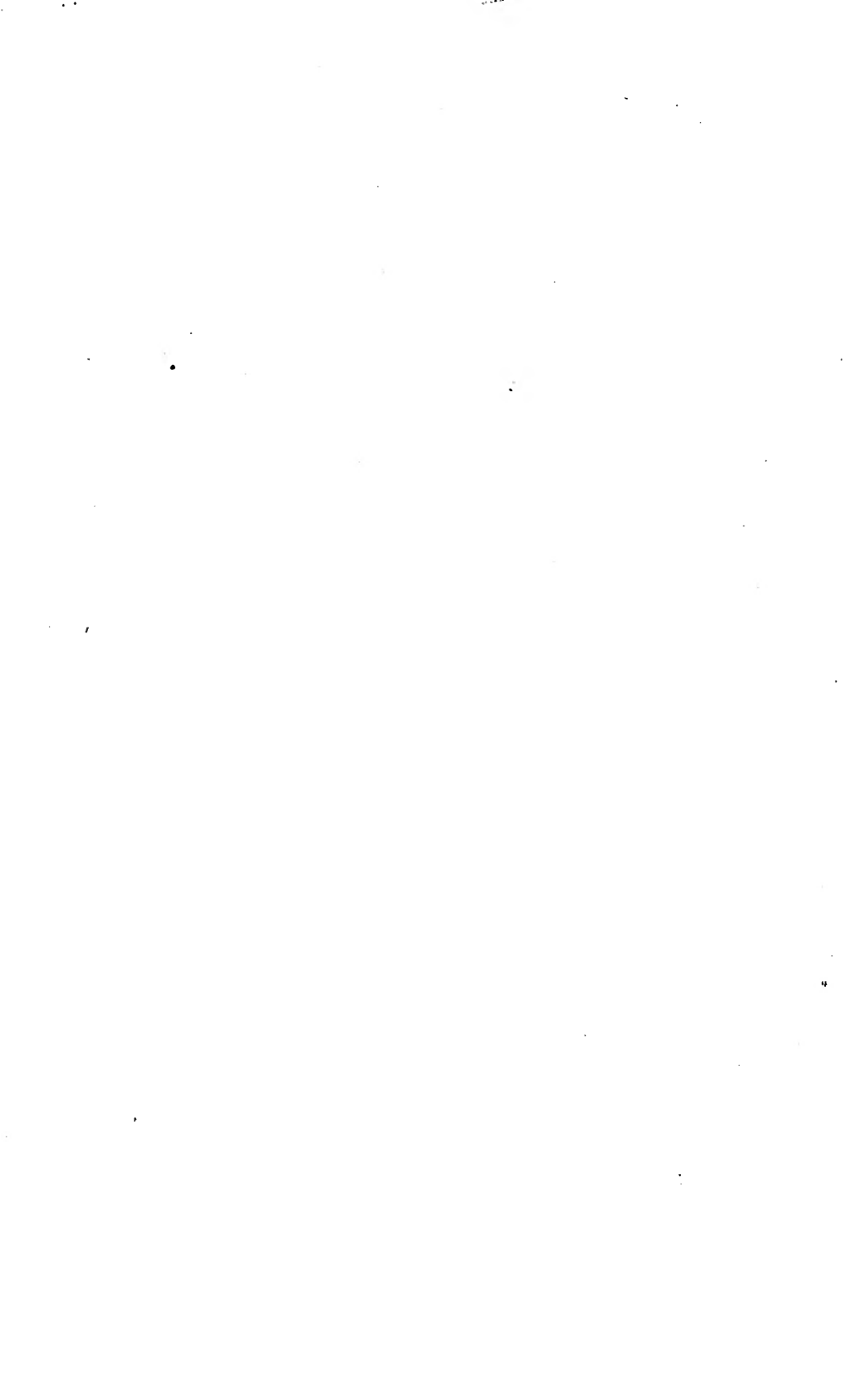
Characters. Similar to *Z. princeps* Allen, but even larger than that species, and differently colored, being lighter both on the back and sides. Hind legs and feet much stouter.

Color. Top of head and upper parts to base of tail, brownish-black mixed with buff, this latter color predominating between the ears and back of head; sides of head, shoulders, sides of body and outer part of thigh, bright yellowish-buff, sparingly streaked with black hairs; entire under parts, and inner sides of legs, with hands and feet, pure white. Tail covered with small scales; base, dark-brown above, white beneath.

Cranial Characters. Skull is much broader for its relative length than that of *Z. princeps*, with wider frontals and less ante-orbital constriction. Nasals are longer, and broader at their juncture with the frontals. Palate is shorter and narrower posteriorly, and the pterygoids straighter. Auditory bullæ, somewhat larger. Molars are larger, the last upper molar being about half the size of the one preceding.

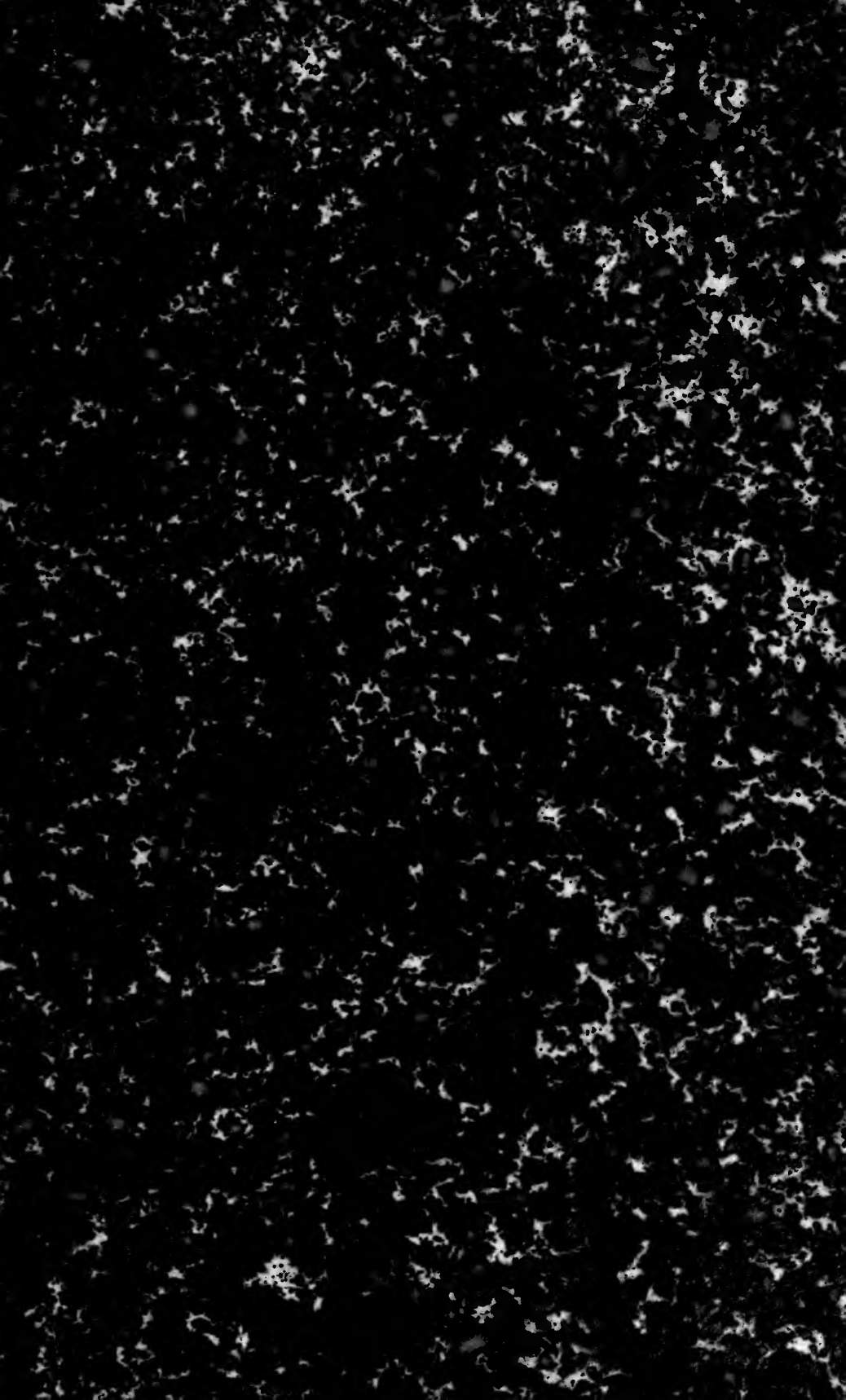
Measurements. Type. Total length, 241 mm.; tail, 141; hind leg, 28. In general appearance this species is much lighter than *Z. princeps*, the only one with which it can be compared.











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