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Some Recent Finds of Remains of the Extinct Ground Sloth in Southwest Iowa

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SOME RECENT FINDS OF REMAINS OF THE EX- TINCT GROUND SLOTH IN SOUTHWEST IOWA

FRED DELAVAN

Evidence of the extinct ground sloth in Iowa is very meager, but additional remains are being brought forth yearly. At the present time the knowledge of its presence is limited almost entirely to the counties bordering the Missouri River; the one exception is Dubuque County, in the middle eastern portion of the state. Three specimens have been added to the collection in the past year. A tooth of the *Megalonyx* from Dixon Creek, Fremont County, collected by George Day, and a tooth and claw bone from Chabaneau Creek, Mills County, collected by the writer. The tooth from Chabaneau is exceptionally long and well preserved.

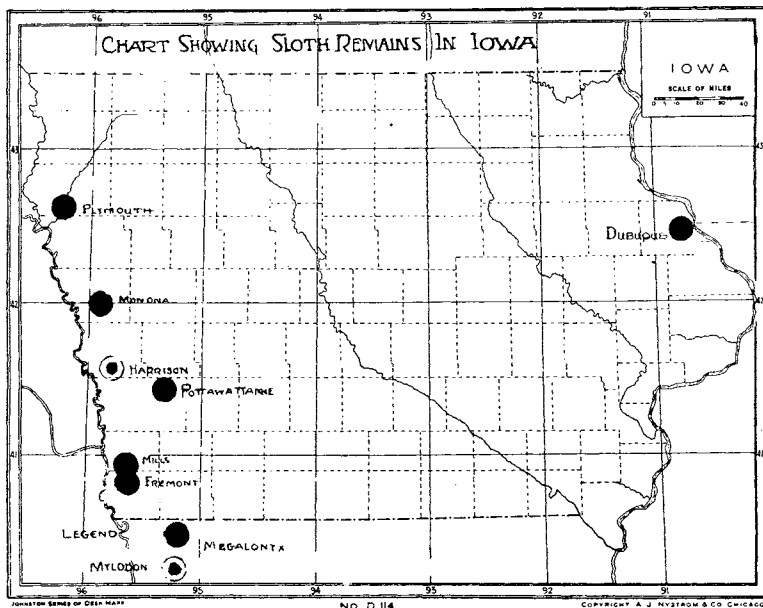
For the benefit of those who have not made a study of the ground sloth, I will give a brief history. The sloths are divided into two main groups, the *Tardigrada*, or tree-sloth, and the *Gravigrada*, or extinct ground-sloth. The *Gravigrada* are the only sloths which are known to have existed in Iowa, and two genera of these have been found; *Megalonyx* and *Mylodon*. Of these two, *Megalonyx* seems to be the more common. The chief difference between *Megalonyx* and *Mylodon* is that the bones of *Mylodon* are shorter and heavier proportionally than those of *Megalonyx*; its head is flat while that of *Megalonyx* has a sharply defined ridge running down to the base of the skull. The claw differs in that it has a slight inward curvature, and the tooth in that it has a triangular pattern in *Megalonyx*, and is round in *Mylodon*.

The ground-sloth was of gigantic size; some specimens measuring eleven feet long, and nearly five feet high — compared to the modern tree-sloth, which is only about two feet long. The habits of the ground-sloth were similar to those of the modern tree-sloth, in that it lived on vegetation. Unlike its smaller relative it was unable to climb among the branches, due to its great size, but, as stated by Professor Owen, the enormously strong bones of these animals indicate that they could uproot trees of considerable size in order to get the foliage.

As to the length of time since the ground-sloth has disappeared, investigations of sloth finds in South America have revealed bones

and pieces of hide to which tendons and fibres of muscle are still attached; indicating that they have lived there at least in the recent past. A find in Patagonia, Chile, revealed the remains of sloths associated with evidences of human occupation, among which were some remains of cut hay. The conclusion was reached that at some time past, men kept these great creatures in captivity for some purpose.

The sloth has a very simple type of teeth, consisting of five molars above and four below; tooth formula: $i \frac{0}{0} c \frac{0}{0} m \frac{5}{4}$. They are of columnar structure, and have no roots. They are without



enamel, but have a hard outer covering. There are no ridges on the face of the tooth, but the pulp in the center wears down more rapidly than the outer edge, so that it makes some semblance of a cutting edge. The tooth has a persistent pulp, so that as it wears down it grows out, thus maintaining the normal length.

The claws of the sloth were exceptionally long and powerful; and were protected by a sheath of bone which extended entirely around the base of the claw. The bones, too, were of great size and strength.

The ground-sloth ranged over both North and South America, and it was very common on both continents.

The above sketch was taken from that of Hay, Iowa Geol. Surv., Vol. XXIII, 1914.

Delavan: Some Recent Finds of Remains of the Extinct Ground Sloth in South

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

RECENT FINDS IN SOUTHWEST IOWA

| MEGALONYX | | | | |
|---|---------------|----------------------|--|---------|
| SPECIMEN | COLLECTOR | LOCALITY | CITATION | AUTHOR |
| 1. Bones and teeth..... | Whitney ... | Dubuque County.... | Geol. S. Wis. Vol. I 1862 p. 135.... | Whitney |
| Bones and teeth..... | Whitney ... | Dubuque County.... | G. S. Ill. Vol. I 1866 p. 162 & 422(?) | Worthen |
| Bones and teeth..... | Whitney ... | Dubuque County.... | Iowa G. S. XXIII 1914 p. 127..... | Hay |
| 2. Claw | Todd | Mills County..... | Proc.A.A.A.S. XXXVII 1889, p. 202 | Todd |
| Claw | Todd | Mills County..... | Bull. Geol. S.A. XX 1910 p. 353.... | Calvin |
| Claw | Todd | Mills County..... | Iowa G. S. XXIII 1914 p. 127..... | Hay |
| 3. Ungual phalange..... | Shimek | Plymouth County.... | Iowa G. S. XXIII 1914 p. 128..... | Hay |
| 4. Patella | Unknown | Plymouth County.... | Bull. G. S. A. XXII 1911 p. 215.... | Calvin |
| Patella | Unknown | Plymouth County.... | Iowa G. S. XXIII 1914 p. 129..... | Hay |
| 5. Right radius..... | Unknown | Monona County..... | Bull. G. S. A. XXII 1911 p. 215.... | Calvin |
| Right radius..... | Unknown | Monona County..... | Iowa G. S. XXIII 1914 p. 129..... | Hay |
| 6. Right tibia..... | Calvin | Harrison County.... | Bull. G. S. A. XXII 1911 p. 215.... | Calvin |
| Right tibia..... | Calvin | Harrison County.... | Iowa G. S. XXIII 1914 p. 130..... | Hay |
| 7. Lumbar vertebra..... | Shimek | Harrison County.... | Iowa G. S. XXIII 1914 p. 130..... | Hay |
| 8. 1st and 2nd phalange of R. hind foot | Shimek | Harrison County.... | Bull. G. S. A. XXI 1910 p. 127..... | Shimek |
| 1st and 2nd phalange of R. hind foot | Shimek | Harrison County.... | Iowa G. S. XXIII 1914 p. 131..... | Hay |
| 9. R. humerus..... | R. Leonard. | Pottawattamie County | Report I. A. S. XXIX 1922 p. 129.. | Thomas |
| 10. R. tibia..... | (purchase) | Henry County..... | Report I. A. S. XXIX 1922 p. 129.. | Thomas |
| MYLÖDON | | | | |
| 1. Ungual phalange..... | Calvin | Harrison County.... | Iowa G. S. XXIII 1914 p. 142..... | Hay |
| Ungual phalange..... | Calvin | Harrison County.... | Bull. G. S. A. XX 1910 p. 353..... | Calvin |
| MEGALONYX New Finds From Mills and Fremont Counties | | | | |
| 1. Claw | F. Delavan. | Mills County..... | | |
| 2. Tooth, molar..... | F. Delavan. | Mills County..... | | |
| 3. Tooth, molar..... | Geo. Day... | Fremont County.... | | |

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