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IN BEE COUNTY, TEXAS

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## A NEW RODENT FROM SUBSURFACE STRATUM IN BEE COUNTY, TEXAS

CLAUDE W. HIBBARD<sup>1</sup> AND JOHN A. WILSON<sup>2</sup>

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### INTRODUCTION

In June of 1948 Dr. Dan E. Feray, then in charge of the Well Sample Library of the Bureau of Economic Geology of The University of Texas, discovered a fragmentary lower jaw of a geomyid rodent in an oil-well sample. The sample from which the jaw was recovered consisted of drill cuttings recovered from a depth of 1,280 to 1,300 feet. The jaw was examined closely for fragments of matrix adhering to the bone and teeth to determine whether or not the specimen belonged at that level or if it had dropped down from above. Unfortunately, the matrix was not sufficiently diagnostic to make an accurate correlation with sam-

ples above that level. The authors are, therefore, unable to assign a definite stratigraphic position to it. In spite of this, they feel it warrants description because it increases the knowledge of Cenozoic mammals as furnished by specimens recovered from well samples.

Simpson (1932) reported upon a new Paleocene mammal recovered from a core taken at a depth of 2,460 feet in Louisiana. Hesse (1934) reported upon a jaw of a fossil vole recovered from an upper Pliocene core taken at a depth of 3,174 feet below the surface in Kern County, California.

The authors are grateful to Dr. George G. Simpson of the American Museum of Natural History, Dr. Joseph T. Gregory of the Peabody Museum, Yale University, and Dr. C. Lewis Gazin of the United States National Museum for permission to study remains of Cenozoic geomyid rodents

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under their care. They are also indebted to Dr. John T. Lonsdale for permission to study and report upon this specimen.

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of anterior cingulum; base of lower incisors forms knob on ascending ramus; anterior face of upper incisors slightly rounded; slight supraorbital ridges, with no trace of their uniting to form a sagittal crest."

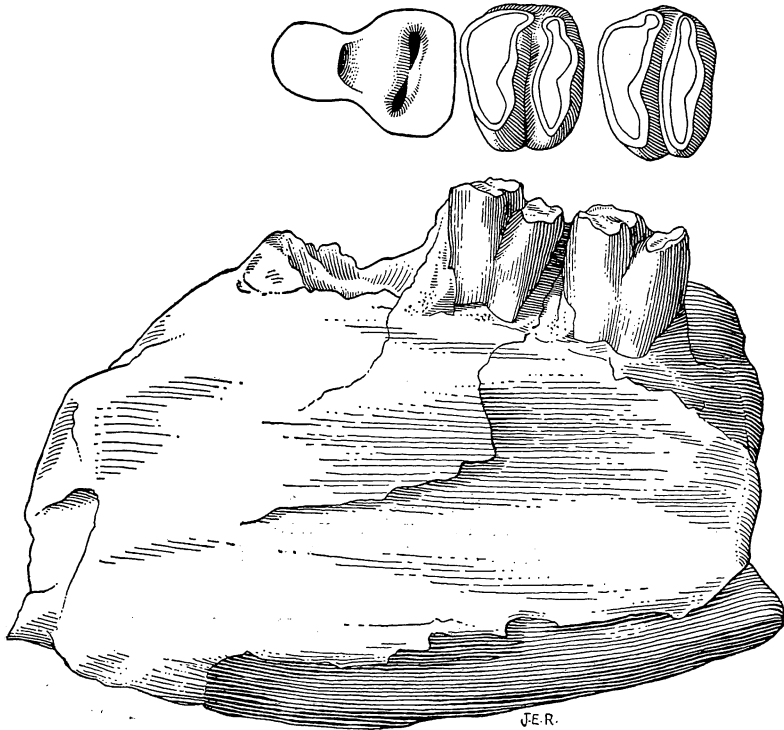


FIG. 1.—No. 40061, Bureau of Economic Geology, The University of Texas, *Grangerimus sellardsi* Hibbard and Wilson, holotype. Fragmentary right lower jaw, with base of  $P_4$  and complete  $M_1$ – $M_2$ . Lingual and occlusal views.  $\times 5$ .

University of Michigan has made possible the illustration of the paper. The drawing was made by Miss Janet E. Roemhild.

The specimen here reported appears to belong to the genus *Grangerimus* Wood, 1936.

Albert Elmer Wood (1936, p. 14) gave the following generic diagnosis based upon a damaged skull with lower jaws, from the lower Miocene, upper John Day beds, John Day River, Oregon: "Molars high crowned but rooted;  $P_4$  with single cusped protoloph; slight tendency for development of lakes in upper molars; H-pattern in lower molars;  $P_4$  with anteroconid but only a trace

#### LOCATION AND STRATIGRAPHY

The well from which the jaw was recovered is the United Production Company No. 32 George A. Ray located in the North Pettus field, which is a few miles north of the town of Pettus in Bee County, Texas, on the Habbermacker survey, 660 feet southeast of well No. 13 and 250 feet from the northeast line of the survey. The samples from this well in the Well Sample Library of the Bureau of Economic Geology bear the serial number 4575. This record shows that it was completed as a dry hole on February 27, 1931.

Samples from 0 to 552 feet were identi-

fied as Oakville formation, and samples from 552 to 2,405 feet were identified as Catahoula. The Oakville is Miocene and the Catahoula is Oligocène. It is possible that the jaw could have come from either one; however, the identification as *Grangerimus* would tend to favor a Miocene age.

GRANGERIMUS SELLARDSI Hibbard and Wilson, n. sp.

*Holotype*.—No. 40061, in the collection of the Bureau of Economic Geology of The University of Texas, part of right ramus bearing alveolus and roots of P<sub>4</sub>, complete M<sub>1</sub> and M<sub>2</sub> and the anterior root of M<sub>3</sub>.

*Horizon and type locality*.—Miocene or Oligocene. United Production Company No. 32 George A. Ray well from a depth of 1,280 to 1,300 feet (?), Bee County, Texas.

*Diagnosis*.—A geomyid rodent slightly smaller than *Grangerimus oregonensis* Wood. P<sub>4</sub> with anterior loph (protolophid) reduced. Metalophid of P<sub>4</sub> nearly as wide as protolophid of M<sub>1</sub>. M<sub>1</sub> slightly smaller than M<sub>2</sub>. M<sub>3</sub> slightly narrower than M<sub>1</sub> or M<sub>2</sub>. Teeth high crowned. Enamel extends to base of crowns but not onto the roots. Pattern of M<sub>1</sub> and M<sub>2</sub> with further wear will produce an open U instead of an H-pattern. The protolophid and metalophid of M<sub>1</sub> and M<sub>2</sub> will join first on the labial side. The valley between the protolophid and metalophid of M<sub>1</sub> and M<sub>2</sub> is much deeper on the lingual side than on the labial side of the tooth. The valley of M<sub>1</sub> and M<sub>2</sub> with further wear will join lingually beyond the midpoint of the valley and will form an enamel island on the labial side of the tooth.

*Description of holotype*.—The type specimen is a fragmentary part of a right lower jaw lacking P<sub>4</sub> and M<sub>3</sub>. The lower jaw is broken anteriorly at the posterior edge of the mental foramen. It is broken posteriorly at the midline of M<sub>3</sub> and no part of the ascending ramus is present. The specimen is well preserved and is white in color. Measurements are as follows:

	<i>mm.</i>
Alveolar length of P <sub>4</sub> -M <sub>2</sub> .....	5.90
Occlusal length of M <sub>1</sub> -M <sub>2</sub> .....	3.10
Occlusal length of M <sub>1</sub> .....	1.50
Greatest width of M <sub>1</sub> .....	1.85
Occlusal length of M <sub>2</sub> .....	1.50
Greatest width of M <sub>2</sub> .....	1.88

P<sub>4</sub> is represented only by the base of the tooth and its roots. The anterior root is small and seems to indicate a small protolophid. The posterior root is broad and appears to be divided since it possessed two nutritive canals. M<sub>1</sub> slightly narrower than M<sub>2</sub>. The protolophid of M<sub>1</sub> is crescentic and the labial part nearly touches the labial edge of the metalophid. The protolophids and metalophids of M<sub>1</sub> and M<sub>2</sub> were three-cusped. The protolophid of M<sub>2</sub> does not possess as great a posterior projection on the labial side as is found in M<sub>1</sub>. The lingual part of the valley on M<sub>1</sub> and M<sub>2</sub> is deep, wide, and extends well down on the side of the tooth. This character of the valley between the protolophid and metalophid distinguishes this form from *Diprionomys* Kellogg.

The masseteric crest is not pronounced, which may be due to abrasion. It ends well forward of P<sub>4</sub>.

Because of the size of the specimen, the well-developed roots of the teeth, the fact that the enamel extends only to the base of the crowns of the teeth, the occlusal pattern, and the deeply developed lingual part of the valley of M<sub>1</sub> and M<sub>2</sub>, the specimen has been assigned to the genus *Grangerimus*.

This species is named for Dr. E. H. Sellards, who has devoted much of his life to the study of Cenozoic mammals.

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