

## DISCOVERY OF A NEW OLIGOCENE PLEUROTOMARIID FROM TAIPEI PREFECTURE, TAIWAN

C. C. Lin

Department of Geology, National Taiwan University  
Taipei, Taiwan, R. O. C.

### ABSTRACT

A new Oligocene pleurotomariid obtained from the Urai Group at Tachichiao valley, Sintien-chen, Taipei Prefecture, North Taiwan is reported, and named as *Perotrochus hsiehkwanghoi* in this paper. This species is the first Oligocene and the second Palaeogene Tertiary pleurotomariid in the Western Pacific Province, and it is very important in studying the old type molluscs, family Pleurotomariidae.

### INTRODUCTION

In October, 1973, a large size fossil pleurotomariid was obtained by Mr. Kwang-ho Hsieh\* from a large black shale boulder of the Urai Group at the Tachichiao valley, Sintien-chen, Taipei Prefecture, North Taiwan with abundant *Amusiopecten kankoensis* (TAN,) the most common Oligocene molluscs in Taiwan. This fossil pleurotomariid was sent to the author for identification. After my study, I found that is a very special and important pleurotomariid, and named it as "*Perotrochus hsiehkwanghoi* Lin, n. sp". The Urai Group of the North Taiwan or the Suichangliu Formation ("Suichoryu Formation" by Japanese geologist) in middle Taiwan is recognized as Oligocene Epoch of Tertiary Period.

Last year the author reported three new Miocene species of Family Pleurotomariidae from the Nantou Prefecture, Central Taiwan (Lin 1975). The Oligocene Pleurotomariidae was the first occurrence both in Taiwan and the other districts of the West Pacific Province. Eocene pleurotomariid (*Perotrochus eocenicus*) was reported by Hidetaka Kuroda and Hideo Urata from the Kattachi Formation in the Miike Coal Field, North Kyushu, Japan in 1964. So *Perotrochus hsiehkwanghoi* is the second occurrence of Palaeogene pleurotomariid in the West Pacific Province. The discovery of Oligocene pleurotomariid in Taiwan is very important in studying Cenozoic Pleurotomariidae in East Asia.

I wish to offer my heartiest thanks to Mr, Kwang-ho Hsieh,\* who gives me the opportunity to study this very rare and important Oligocene pleurotomariid.

---

\*Member of the Study Center of Historical Data, Republic of China.

## DESCRIPTION OF SPECIES

Family Pleurotomariidae Swainson, 1840

*Perotrochus hsiehwanghoi* Lin, n. sp.

Shell turbiniform, very weakly compressed bilaterally, rather large, with maximum diameter 130 mm, only two last whorls and partly of the third whorl from the last are preserved. So its height is unknown. Most of the apertural part missed, and length of slit unknown. Whorls moderately convex, last one is angular at periphery of base. Suture is unknown by secondary deposition of the calcite crystal and calcareous black shale. But narrow shoulder of the last whorl is partly recognized. Beak and young whorls are not preserved. Base is generally flat, but weakly globulate, anomphalous, but with shallow "false umbilicus". On the margin of the "false umbilicus", there is a large hemisphaerical bulge with 33 mm in diameter. The presence of such large hemisphaerical bulge is the most distinct characteristics of this species. As most part of the shell was dissolved or partly recrystallized, the surface ornamentation is unknown, but position of dissolved selenizon or partly preserved sharp upper margin of selenizon can be seen on the last whorl. From these remains of selenizon we know the position of selenizon is at just below midwhorl and moderately broad at the last whorl.

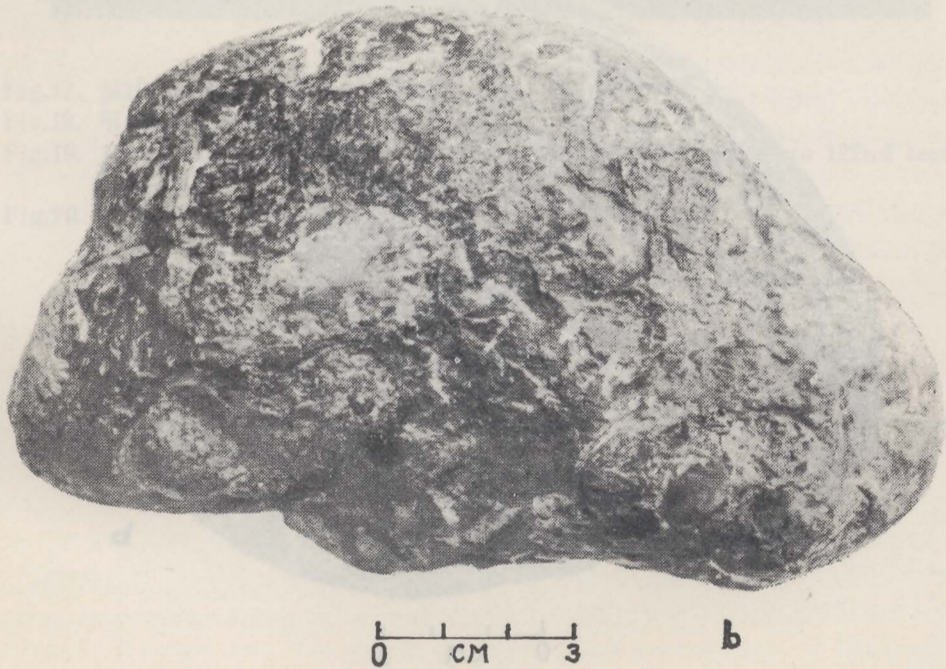
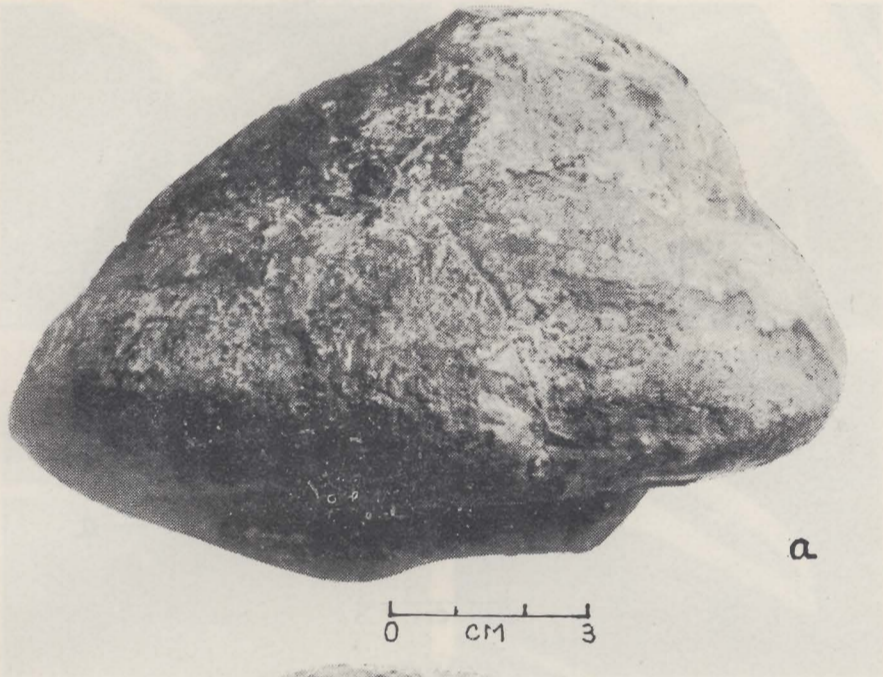
*Locality and Formation:* This specimen was obtained from a large boulder of the Urai Group at Tachichiao valley, Sintien-chen, Taipei Prefecture, Taiwan.

*Geological Age:* According to the biostratigraphical study of smaller Foramanifera by Li-Sho Chang, the Urai Group, corresponds to his *Gaudryina hayasakai* Zone or Blow's N<sub>1</sub>, N<sub>2</sub>, and N<sub>3</sub> Zones (Chang, 1975). The geological age of the Blow's N<sub>1</sub>, N<sub>2</sub>, N<sub>3</sub> Zones, (or P<sub>20</sub>, P<sub>21</sub>, P<sub>22</sub> Zones) are Upper Oligocene Chattian Age. But according to the study of Tertiary nannoplankton by Tin-Chang Huang, the Urai Group corresponds to Hay's NP<sub>23</sub>, NP<sub>24</sub>, NP<sub>25</sub> Zones, which belong to Middle and Late Oligocene Epoch (T. C. Chang, M.S.). So the geological age of *Perotrochus hsiehwanghoi* is Oligocene Epoch of Tertiary Period.

## REFERENCES

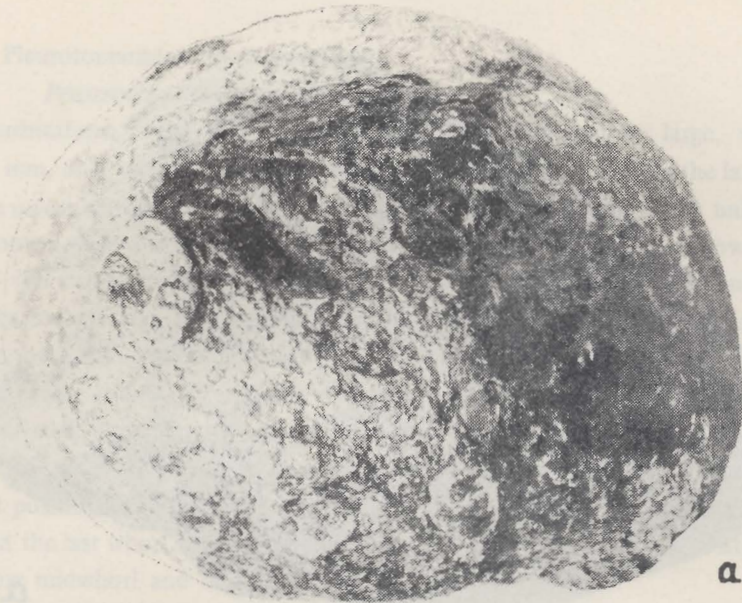
1. Chang, Li-sho (1975), Contributions to the Geology and Palaeontology of Southeast Asia, CLVIII: Biostratigraphy of Taiwan; Geology and Palaeontology of Southeast Asia, Vol XX, pp. 337-361.
2. Kuroda, Hidetaka & Hideo Urata (1964), Discovery of a fossil *Perotrochus* in the Miike Coal-Field, Kyushu, Japan. *Trans. Proc. Palaeont. Soc. Japan, N. S.*, No. 55, pp. 263-270, pl 28.
3. Lin, C. C. (1975) Miocene Pleurotomariidae from Nantou Prefecture, Central Taiwan. *Bull. of the Malacological Soc. of China*, Vol. 2. pp. 21-31, Pls. I-IV.





Pl. I, a: lateral view  
b: apertural view





a

0 1 2 3  
CM



b

0 1 2 3  
CM

Pl. II, a: apical view  
b: basal view





0 CM 3



Pl. III, a: lateral view  
b: apertural view



Pl. IV, a: apical view  
b: basal view



0 CM 3



## 臺北縣漸新世翁戎螺的發現

林 朝 榮

國立臺灣大學地質學系

### 摘 要

民國六十三年十月中華民國史料研究中心的謝廣和先生，在臺北縣新店鎮大崎脚溪谷的烏來群黑色頁岩的一塊大滾石中採到一個大形翁戎螺化石與大量的臺灣烏來群代表化石的乾溝扇蛤 *Amusiopecten kankoensis*，以及一個海膽化石 *Schizastr* sp.。本翁戎螺化石經筆者研究後為西太平洋區唯一之漸新世翁戎螺而命名為「謝廣和翁戎螺 *Petrochus hsiekwanghoi*」。原來第三紀的翁戎螺化石極其稀罕。去年（民國六十四年）筆者在本誌上發表三種南投縣之中新世翁戎螺化石。所以本化石為臺灣第四種的第三紀翁戎螺化石。1964年日本三池煤礦的始新世地層中曾經出現「始新翁戎螺」一種，故臺灣的本漸新世翁戎螺為西太平洋區的第二種古第三紀的翁戎螺化石，而對於新生代翁戎螺科研究上增加了重要的資料，如此，臺灣已成為新生代翁戎螺的主要產地之一。