On the Sakuma Formation, Awa Province, Tiba Prefecture, Japan.

By

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註記: 本論文は元会員故大塚彌之助博士が1946年に当時の石油開発促進委員会(PEAC)に Reference 34号として提出せられたものである。同博士の長年にわたる房総半島の地質研究のうち、佐久間層に関する意見を要約したものであるが、昨今関東地方の石油探鉱のため房総半島中部の地質調査も活潑に行われている折柄、この埋れた小篇を世に出すことも有意義と思い、提出した次第である。(石和田靖章記)

Since 1935, stratigraphy and geologic structure were studied by the writer in northwest part of Awa province, Tiba prefecture. Accompanying geologic map and geologic sections are the results of this study. The stratigraphic sequence is as follows:

a. Minato silt. Unconsolidated marine silt exposed at Hongo, 1.5 km east from the Katuyama railway station. Common species of fossils are, mollusca: *Dosinia angulosa* (Philippi), *Ostrea gigas* Thunberg; foraminifera: *Quinqueloculina lamarcki* d'Orbigny. This formation may be contemporaneous with the Minato silt of Y. Ozawa 1924, which is raised marine alluvial deposits at Minato-town, Awa province, Tiba prefecture.

pl. Amatu group (= writer's Amatu series, 1937). Muddy silt and silty sand intercalating with 2 thick tuffaceous sandstones or conglomerates. Lower part of this group changes into alternation of black mud and scoriaceous sandstone. This group is underlain by the pre-Amatsu group with clino-unconformity. Type locality of this formation is Amatu town, east part of Awa province, Tiba prefecture. Following characteristic fossils were collected from silty rocks of this group: *Palliolium* (*Delectopecten*) *peckhami* (Gabb), *Solemya tokunagai* Yokoyama, *Thyasira bisecta* (Conrad), *Dentalium yokoyamai* Makiyama; and from tuffaceous rocks, part of which is called the

Nokogiri tuffaceous sandstone: *Chlamys miurensis* (Yokoyama), *Amussiopecten prae-signis* (Yokoyama), *Ostrea musashiana* Yokoyama, *Echinolampas yoshiwarai* P. de Loriol, *Isurus hastalis* (Agassiz). Some of these fossils are characteristic species of the lower Kakegawa series, the Japanese Plaisancian stage.

m. Sakuma formation. (part of Ueda's Sakuma group, 1930): Upper part; alternation of silty sandstone and sandstone. Basal part; conglomerate underlain by pre-Sakuma group with clino-unconformity. *Miogypsina* sp. a dwarf form, and some other foraminifera were collected from the upper part of the alternation exposed on the abrasion platform of Yosihama near Hota town.

ml. pre-Sakuma group. Two localities, where prof. S. Hanzawa has collected some *Lepidocyclus*, are included in this group, not Sakuma formation proper.

Basic intrusive rocks intruded into the Sakuma formation and pre-Sakuma groups.

From the results written above, following knowledges will be detected.

1. The Sakuma formation represented by a dwarf *Miogypsina*, not by *Lepidocyclus*.
2. *Lepidocyclus* collected by S. Hanzawa occurs from the pre-Sakuma groups.
3. Two remarkable clino-unconformities are observable in the Neogene formations

of Boso poninsula. One is post-Sakuma formation and pre-Amatu group and the other is post pre-Sakuma groups and pre-Sakuma formation.

4. From palaeontological view point the Amatu group may be contemporaneous with tne Lower Kakegawa group, Sizuoka prefec-

ture.

5. Former clino-unconformity has similar stratigraphic significance to that of basal part of Zusi group at Miura peninsula, of basal part of Sizuoka group exposed along the Huji river, and of base of the Hagima conglomerate of the Lower Kakegawa group.