報　文

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Geologic Structure of the Permian Formations in the Suzuka Mountains, Central Japan

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Abstract

The Suzuka mountains is characterized by a thrust block which lies on the non-calcareous facies of the middle Permian. The thrust block consists of the calcareous (upper) and the chert (lower) formations of the lower Permian. A part of the former forms three "klippen" which are the remnants of "superficial nappe", while the main part shows "superficial wedge" which is believed to have been resulted from the thrust movement.

This thrust block shows an appearance of "nappe", however it probably was deposited *in situ* simultaneously with the non-calcareous facies and on the barrier-like narrow belt of N-S direction. This block is believed to have been squeezed and thrust upon the non-calcareous facies of the middle Permian by the Oga orogeny of the early Cretaceous age which was proposed by T. KOBAYASHI (1935).

The above-mentioned barrier-like narrow belt, probably, was formed during the latest Sakamotozawan (Early Permian) in the Suzuka mountains (southern part) and the latest Akasakan (Middle Permian) to the earliest Kuman (Late Permian) in the Ibuki mountains (northern part).

1. Introduction

The Suzuka mountains lies between the Kinki and the Chubu districts in the geographic distribution and forms the range which has a height of more than 1,000m above sea level. The Permian formations are distributed in the northern part of the Suzuka mountains and form the high mounts, such as Mt. Ryozensan, Mt. Takamuroyama, Mt. Suzugatake, Mt. Oikedake, Mt. Fujiwaradake and Mt. Ryugatake.

It was discussed by many geologists that the calcareous facies lies on the non-calcareous one in this district: K. TAKIMOTO (1936), who made a geological work in Mt. Ryozensan and its vicinity, concluded that the calcareous formation is thrust on the non-calcareous one. And also K. FUJIWARA (1940), who made a geological work in Mt. Oikedake and its vicinity, too, drew the same inference as K. TAKIMOTO, T. KOBAYASHI (1941, 1951) believed that the calcareous facies (Para-Akiyoshi facies) is a remnants of "nappe" which is thrust upon the non-calcareous facies (Yamaguchi facies) from northward and he inferred that this movement belongs to the Oga orogeny** of the early Cretaceous age. M. MURATA (1960), who made reconnaissance survey in Mt. Fujiwaradake and its vicinity, did not support T. KOBAYASHI's opinion expecting the geologic age of the movement. He also thought that the calcareous facies has been deposited *in situ* simultaneously with the non-calcareous facies and was thrust upon the adjoining formations by folding and thrust movement subsequently, and that the deposition of the calcareous facies was carried probably on the reef resulted from the submarine volcanos.

The present writer surveyed geologically to make clear the geologic structure and the tectonic

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** Oga orogeny, strong in the Inner Zone of the Southwest Japan during the Early Cretaceous Period, which produced the Oga Decke to the northwest of Okayama. The Paleozoic group of the calcareous facies was thrust upon the Triassic group and the Paleozoic group of the non-calcareous facies. The thrust is overlain by the Lower Cretaceous group (T. KOBAYASHI, 1935).

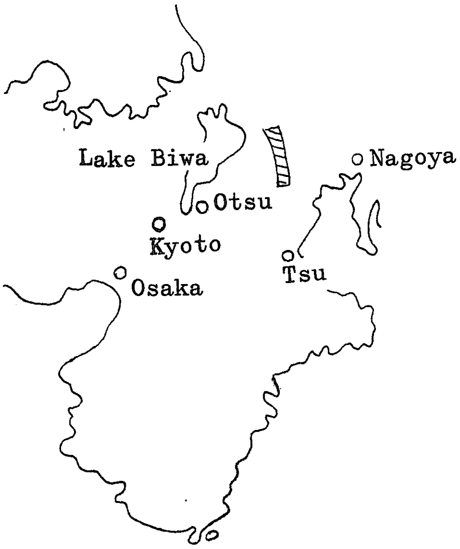

Fig. 1 Index map.

Table 1 Correlation of the Paleozoic formations of the Suzuka mountains.

	Geolo-gical age		Fusulinid zone	Western part			Central part		Eastern part
Permian	upper	Kuman	Yabeina-Lepi-dolina z.						
	middle	Akasakan	Neoschwagerina-Verbeekina zone			Ryugtake Group			? Ikuridani Group ?
	middle lower	Nabeyaman	Parafusulina zone	Hikone Group	Maihara Formation Michigatani Formation				
	lower	Sakamotozawan	Pseudoschwagerina zone				Kitasuzuka Group	Ryozensan Limestone Formation Ojigahata Formation	
Carboni-ferous	upper	Hikawan	Tritic-ites z.						