

## Stratigraphy and correlation of the subsurface geology in the coastal alluvial plains, the northern Shikoku Island

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The speaker reviews the stratigraphy, result of correlation of the volcanic ashes with wide spread tephtras and radiocarbon ages of the fossils beneath some major coastal alluvial plains in the northern part of Shikoku Island. Additionally, he examines the chronological correlation of the stratigraphy.

The subsurface geology in the plains are as follows.

In the Matsuyama Plain, Ehime Prefecture, the sediments are divided into the Pleistocene Shigenobugawa and the Holocene Matsuyama Formations. The upper member of the Shigenobugawa Formation had been formed around 29ka to 26ka on flood plains. The lower part of the Matsuyama Formation had been formed between 7.3ka and 5.8ka, the upper part of the formation had been deposited since 5.8ka.

In the Syuso and Saijyo Plains, Ehime Prefecture, the Quaternary sediments are divided into the Pleistocene Syuso and the Holocene Nyugawa Formations. The upper part of the Syuso Formation would have been deposited continuously until around 26ka to 29ka at river channels or on flood plains. The Nyugawa Formation had formed since 7.3ka mostly as deltaic sediments.

In the Sakaide Lowland, Kagawa Prefecture, the late Quaternary sediments are divided into the Pleistocene Sakaide and the Holocene Ayagawa Formations. The upper member of the Sakaide Formation consists mainly of marsh and flood plain sediments around 25ka. The delta of the Ayagawa river, was built as the Ayagawa Formation between 7.3ka and 5.5ka.

In the Takamatsu Lowland, Kagawa Prefecture, the late Quaternary sediments are divided into the Upper Kotogawa and the Takamatsu Formations. The Upper Kotogawa Formation comprises of alluvial deposits and marsh deposits. The delta of the Kasugagawa river was originated by covering the sandy gravels of the lowermost bed of the Takamatsu Formation since 6ka. The delta of the paleo-Kotogawa river had been formed between 4.0ka and 3.6ka.

In the Tokushima Plain, Tokushima Prefecture, the sediments are as follows; the Pleistocene comprises the Kitajima Formation, and the uppermost Pleistocene and the Holocene comprise the Tokushima Formation. Sedimentation of the lowermost and the lower parts of the Tokushima Formation occurred around 12ka and 11ka to 7.8ka respectively. The middle part of the formation had been deposited during 7.8ka and 3ka. The upper part began to deposit around 3ka and the sediments had been formed until 1.6ka.

Correlation of subsurface geology between these plains is as follows; the Tokushima Formation can be correlated with the Matsuyama, the Nyugawa, the Ayagawa and the Takamatsu Formations. Each plain has own characteristics of lithology and the Holocene sediments vary in the ages of deposition between the plains.