



Fore-arc basalt
(52-50 Ma)

✕ ● Bonin Ridge
✕ ◆

Boninite
(48-46 Ma)

▲ △ Trench slope
● }
○ Mukojima Islands
✕ Chichijima Island

HMA
(45-44 Ma)

◇ Chichijima Island

Tholeiitic and calc-alkaline
basalt to andesite (44 Ma)

■ Hahajima Islands
◇ Bonin Ridge
Escarpment