

## Is Morakot Unique? An Observation from the deep sea

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Since 2006, SW Taiwan was experienced a series of natural hazards including earthquakes and typhoon that induced severe land slides and flooding. Not only on land, these natural hazards also touched off submarine cable-break incidents off southwestern Taiwan from Gaoping Slope to the northern terminus of the Manila Trench and these high destructive submarine gravity flows aroused our curiosity on how frequently such severe and devastating natural hazards will visit Taiwan? The deep sea records give us a clue. In the cruise of OR5-1302-2, two piston cores which were taken from the Maiden Ridge (MT7) and Penghu Canyon (MT6) provide a good opportunity to study the transport of submarine hazard related sediments, their frequency and whether these extreme events may enhance the potential for organic carbon burial. TOC and  $\delta^{13}\text{C}$  data in conjunction with  $^{210}\text{Pb}$  profiles indicate the thickness of Pingtung Earthquake and Morakot Typhoon related deposits exceed the total amount of sediments over the past 100 years. Our results reveal such kind of extreme events not only fast transported sediments to the deep sea but also delivered large amounts of organic carbon into abyss and it may plays an important role on the global carbon cycling system.