

Cornel de Ronde



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9.00am

Cornel de Ronde is a principal scientist at GNS Science (Lower Hutt). He leads the Mineral Wealth CSA (Core Science Area) at GNS Science. Research related to offshore minerals has largely concentrated on seafloor hydrothermal vents associated with submarine arc volcanoes of the Kermadec Arc, northeast of New Zealand. This group was funded in late 2004 and again in 2011 to continue their work that started in 1997. Since then, de Ronde and colleagues have surveyed the entire Kermadec Arc (~1,300 km) and beyond into international and Tongan territorial waters, which they completed in 2004. They have surveyed around 35 major volcanoes and 8 smaller volcanic edifices. In late 2004, de Ronde and colleagues teamed up with Japanese scientists and dove, for the first time, with the JAMSTEC submersible *Shinkai 6500* on Brothers volcano. Then, in early 2005, de Ronde and colleagues completed 23 dives on 9 different volcanoes using the submersible *Pisces V* as part of the New Zealand American Submarine Ring of Fire expedition. In 2007 de Ronde and colleagues from WHOI and NOAA mapped, for the first time, a submarine volcano (Brothers) and its hydrothermal systems using the autonomous underwater vehicle (AUV) *ABE* and in 2011 mapped several other volcanoes using the AUV *Sentry*. De Ronde and colleagues have also participated on research cruises to map the Tofua (Tonga), Tabar-Lihir-Tanga-Feni (Papua New Guinea), Mariana (Guam) arcs, the Ghizo Ridge (Solomon Islands) and the Aeolian arc (Italy) for submarine hydrothermal venting. More recently, he has been interested in various shallow water surveys of geothermal lakes of the Taupo Volcanic Zone.