

## **The youngest eruptions and edifice collapse of Iriga volcano, Philippines**

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Iriga volcano has a prominent 2 km-wide horseshoe-shaped crater formed as a result of recent edifice collapse with the volume of about 1.5km<sup>3</sup>. The associated debris avalanche in the process of motion incorporated significant volume of the substrate (various deposits of pyroclastic flows, lahars and alluvium). We have dated charcoal from the two PFs: silica-rich unwelded ignimbrite > 42400 BP, and andesitic block-and-ash flow 1830+/-40 BP (conventional ages). Additionally we have obtained the <sup>14</sup>C date 1520+/-30 BP from the base of sediment filling one of small lakes formed on top of the debris avalanche deposit. This implies that the volcano collapsed about 1500 years ago, soon after the explosive eruption that generated the block-and-ash flow. The horseshoe-shaped crater of Iriga contains a small maar-like intracrater edifice with its own crater 500 m wide. This edifice was formed by the latest post-collapse eruption of the volcano. Pyroclastic products of this eruption (surges and air fallout) are separated from the debris avalanche deposit by a layer of paleosol 60 cm thick. <sup>14</sup>C dating of the paleosol directly below the pyroclasts indicates the approximate age of the youngest eruption: 1100+/-30 BP. Thus during the last 2000 years Iriga volcano was very active: it produced at least two significant eruptions as well as the large scale collapse.