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Towed camera imagery and benthic sled catches provide different views of seamount benthic diversity

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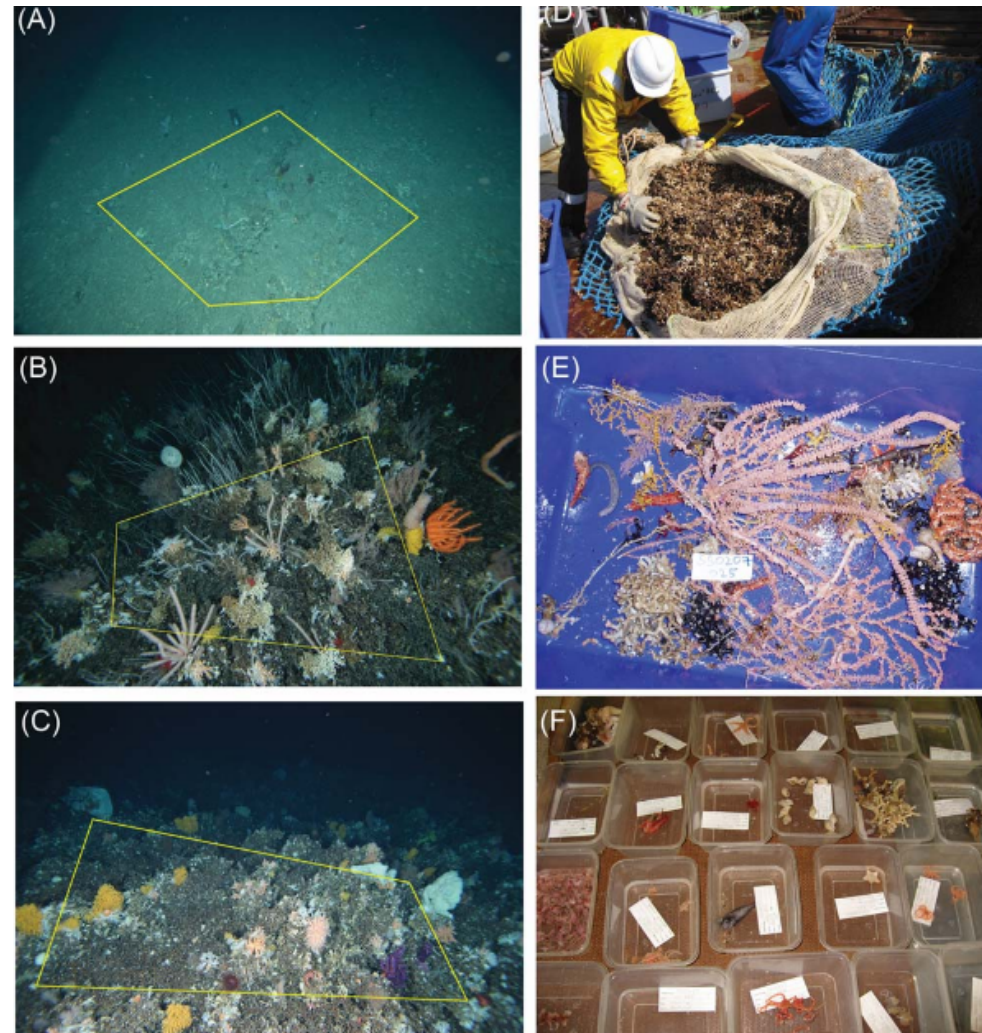
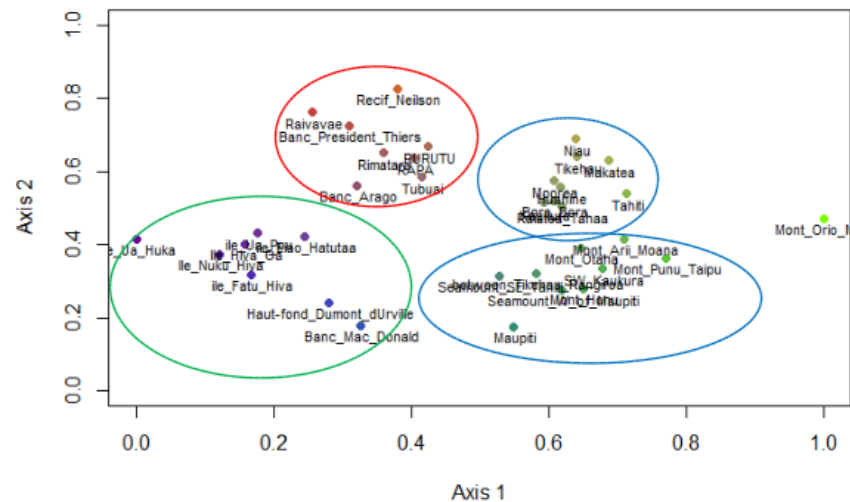
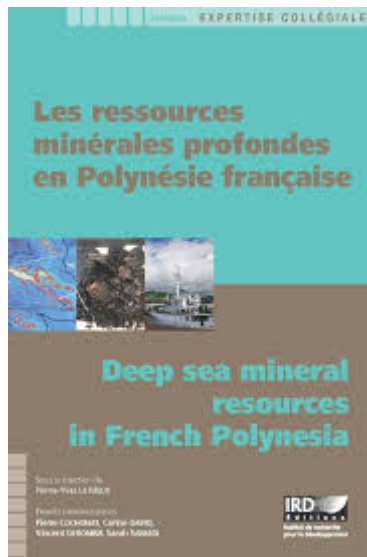
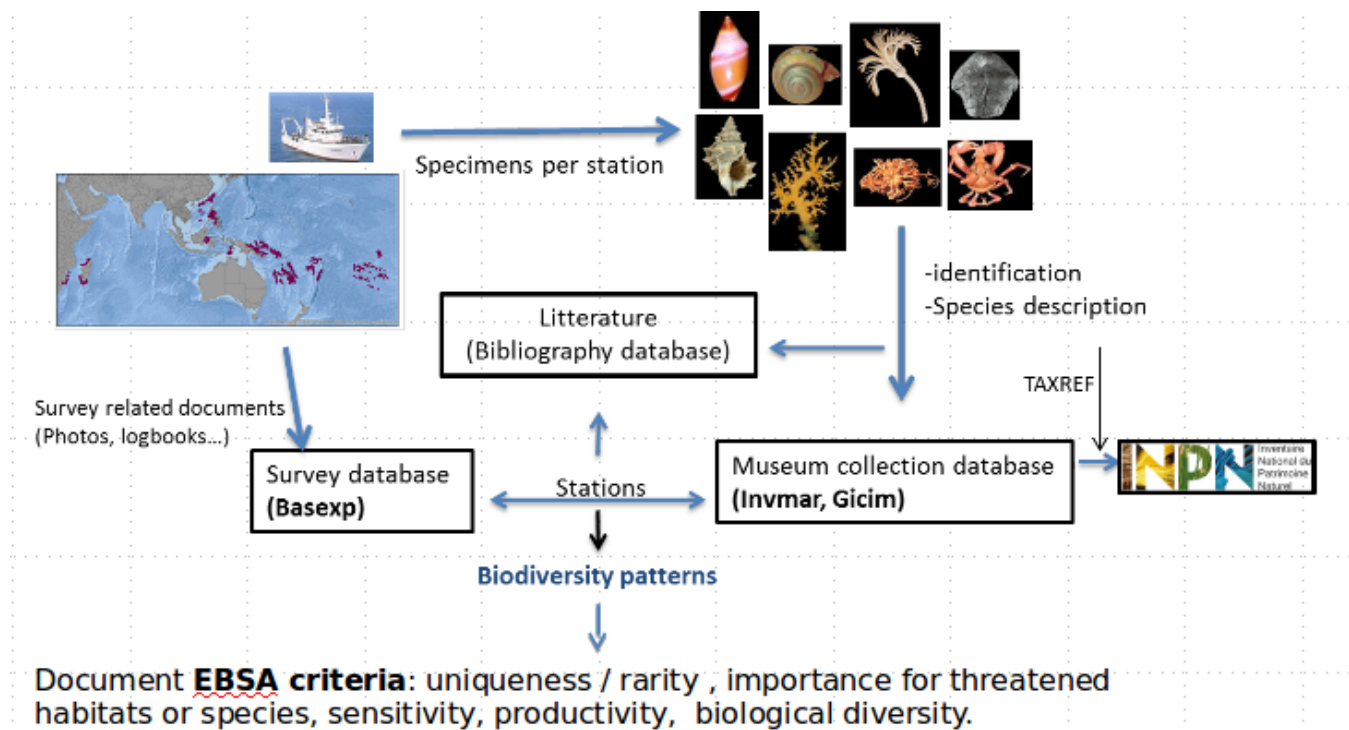


Fig. 2. Sampling seamount megabenthos with a towed camera (A–C) and benthic sled (D–F). Seabed images (A–C) showing sample polygons with known area from, respectively, Pedra (920 m depth; area 4.64 m²); Dory Hill (1111 m depth; area 2.53 m²); Little Sister (1178 m depth; area 5.47 m²); (D) physical collection of megabenthos being removed from sled cod-end (including large catch of dead *Solenosmilia variabilis* matrix); (E) coarsely sorted portion of sled catch (Dory Hill); (F) provisional sort of sled catch into OTUs (Hill U).



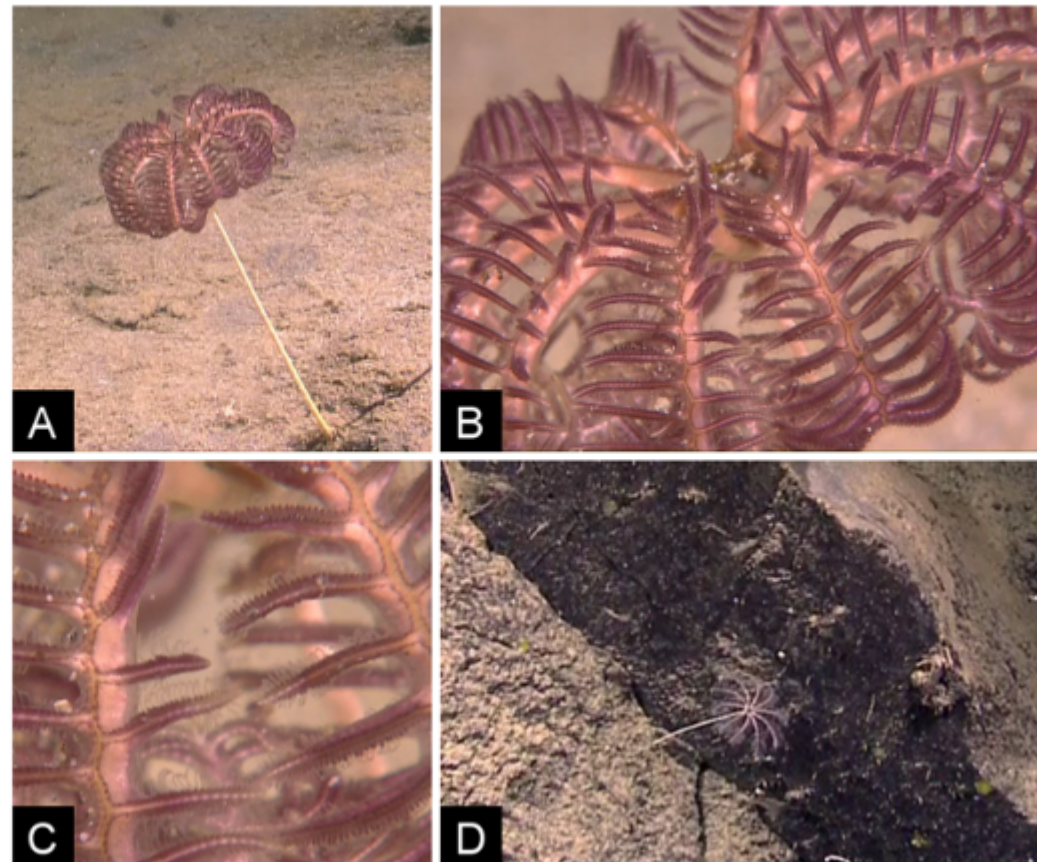
The stalked crinoid fauna (Echinodermata) of the Molucca and Celebes Seas, Indonesia: taxonomic diversity and observations from remotely operated vehicle imagery

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Taxonomic determination

We mainly adhere to the terminology and keys to stalked crinoid genera in Roux et al. (2002). However, from imagery, only clear external morphological characters are available. Video close-ups of isocrinids and hyocrinids can resolve more detailed characters such as the skeletal architecture, stalk attachment, arm pattern, and filtration network with extended podia. Small crinoids with ten arms and a xenomorphic stalk cannot be identified to family level (e.g., either Bathyocrinidae or Septocrinidae). Among metacrinins, ecophenotypic convergences and a wide range of variation in external

Fig. 20 Unknown taxon with homeomorphic stalk (“Purple umbrella crinoid”). **a.** Individual with crown in ballooning posture before disturbance by ROV. Estimate of stalk length 30 cm; depth 1997 m. **b.** Crown after disturbance, with resuspended sediment deposited on arms and pinnules. **c.** Detail of pinnules. **d.** Young individual on same dive in weak current presumed to belong to the same species. Size not available; depth 2125 m



TROPICAL — DEEP SEA — BENTHOS

1- Benefits and limits of each approach ?

2- How making them complementary ?

