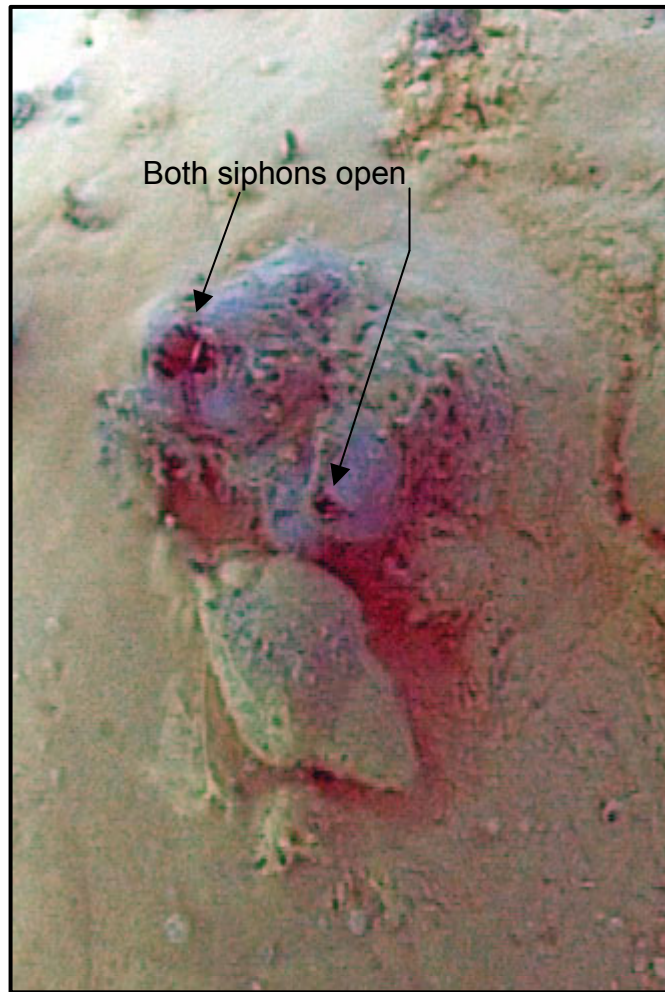


**Picture 6:** Larger panel: view from above a 3 mm plot at Site M1 just hours after terrigenous sediment application. Notice the many holes and burrows that had been cleared by the occupants. Inset: view of a "smoking" hole as the animal occupant ejects terrigenous sediment from its burrow.



**Picture 7:** Horse mussel *Atrina zelandica* inside an experimental plot at Site M1, 1-2 hours after terrigenous sediment deposition. None of the horse mussels were completely smothered by the deposits. The valves of this specimen are open.



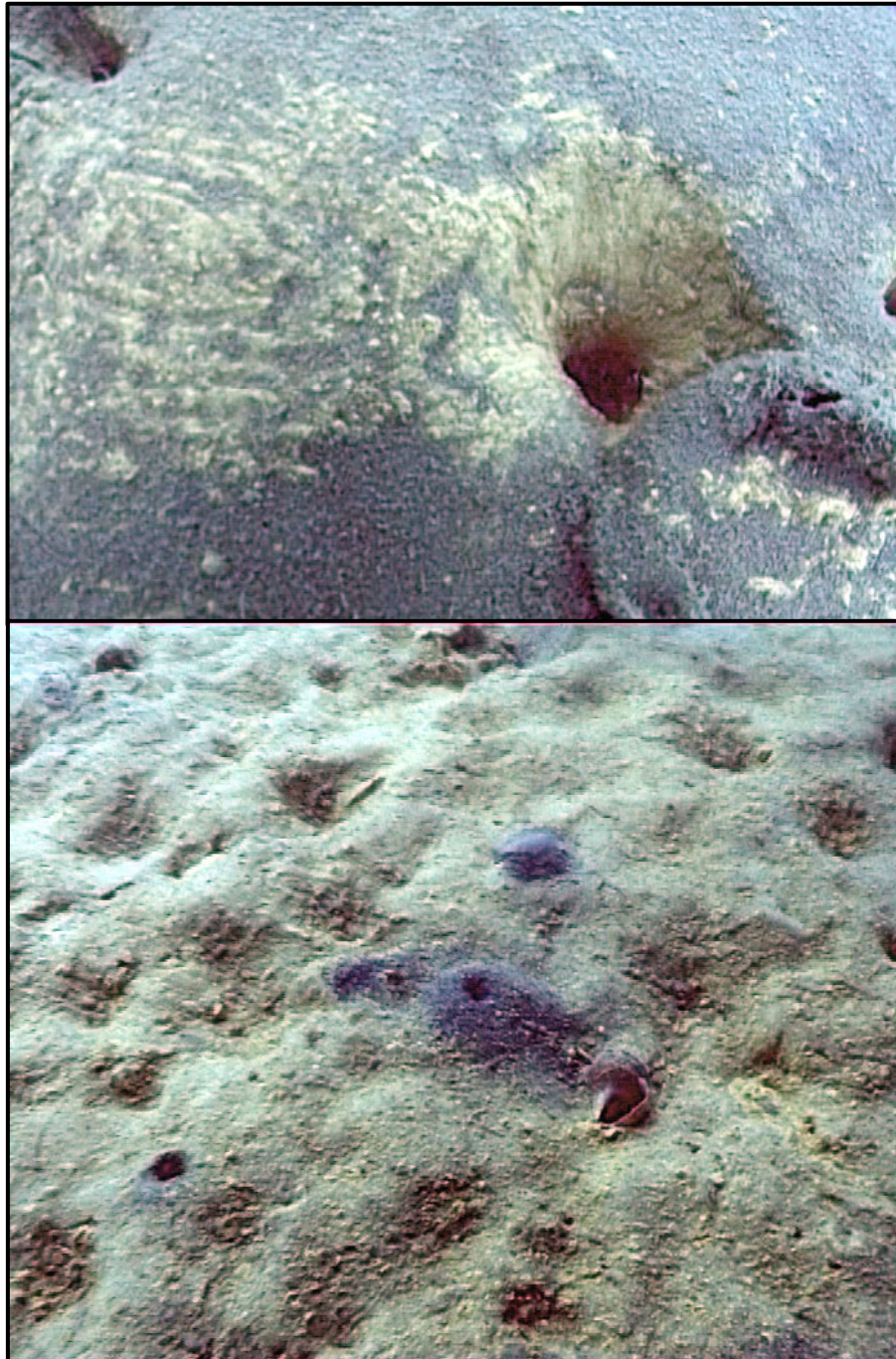
**Picture 8:** The solitary ascidian *Styela plicata* inside an experimental plot at Site M1, 1-2 hours after terrigenous sediment deposition. *Styela* was rare at both experimental sites. The width of the frame is approximately 10 cm.



**Picture 9:** A sponge of the genus *Aaptos*, transplanted from Iris Shoal to Site M1 and exposed to an experimental deposit of terrigenous sediment. Diameter of the animal (viewed here from above) is approximately 5-6 cm. Relative to *Atrina* and *Styela*, the sponges were not able to shed the sediment from their bodies and were heavily coated with the material.



**Picture 10:** Observations of animal mortalities on Day 3 at Site M1. A juvenile scallop *Pecten novaezelandiae* (left) was apparently killed by the terrigenous deposit, and numerous burrowing urchins (*Echinocardium australe*, right) were observed on the surface of treated plots at this site, unusual behaviour not observed in any control areas. Most of the *Echinocardium* had large holes indicative of predation, which likely occurred after they had surfaced. Gastropods occurred at high densities in treated plots on Day 3, apparently scavenging flesh from dead animals.



**Picture 11:** Top panel: a decapod burrow at TK on Day 3. An extensive layer of marine silt covered experimental plots at TK by Day 3, indicative of high current flows and bedload sediment transport; the terrigenous deposits largely remained in place underneath. Bottom panel: less silt atop the plots at MI on Day 3. Cones of dark sediment surrounded some animal burrows. Thus, biologically-mediated sediment mixing and bioturbation occurred at both sites.