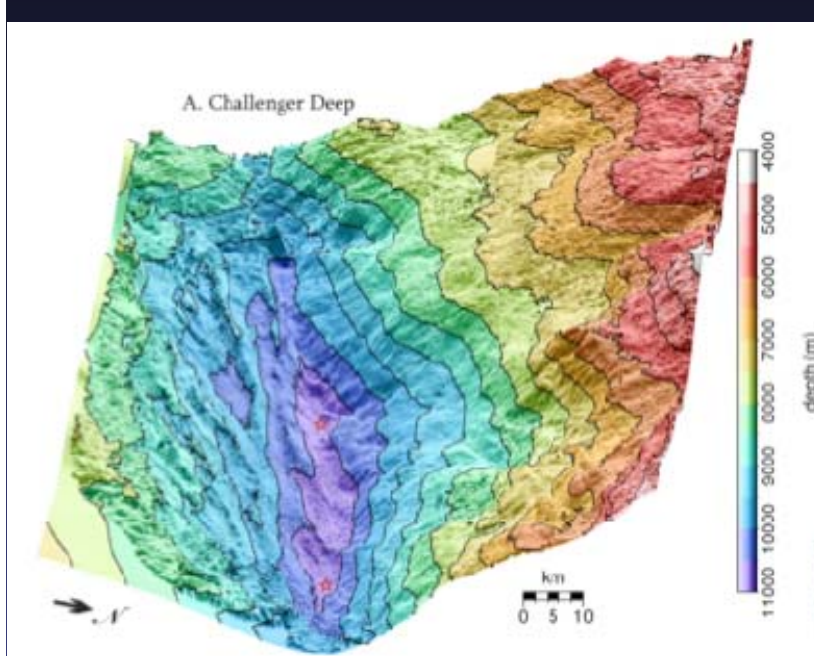
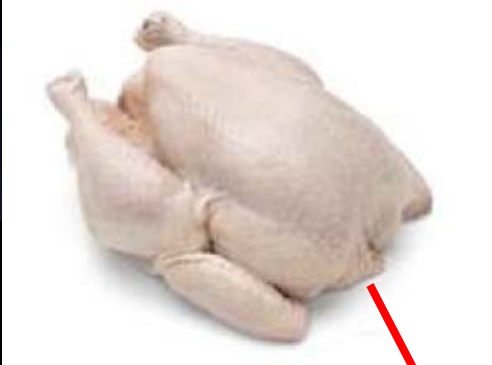


# Why should we care about studying the deep ocean trenches?

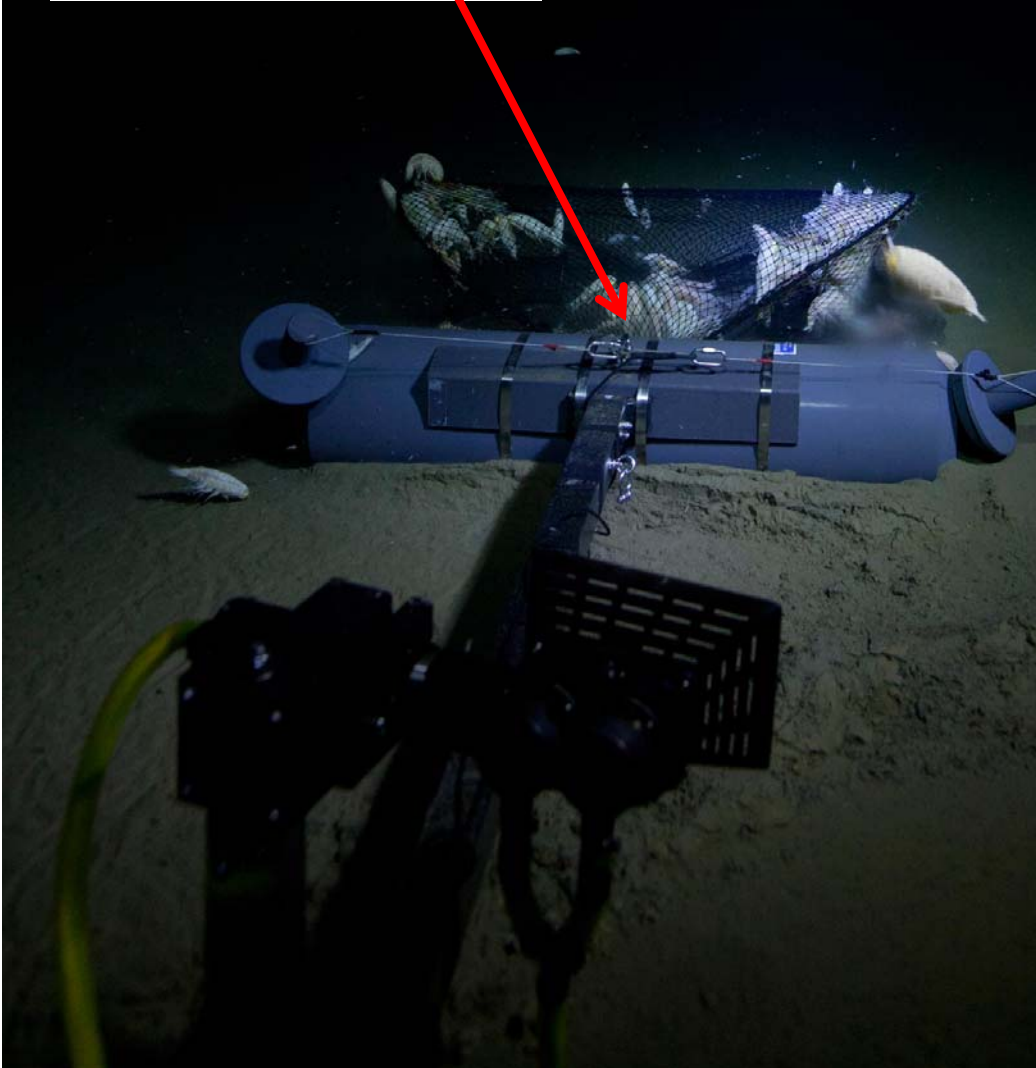




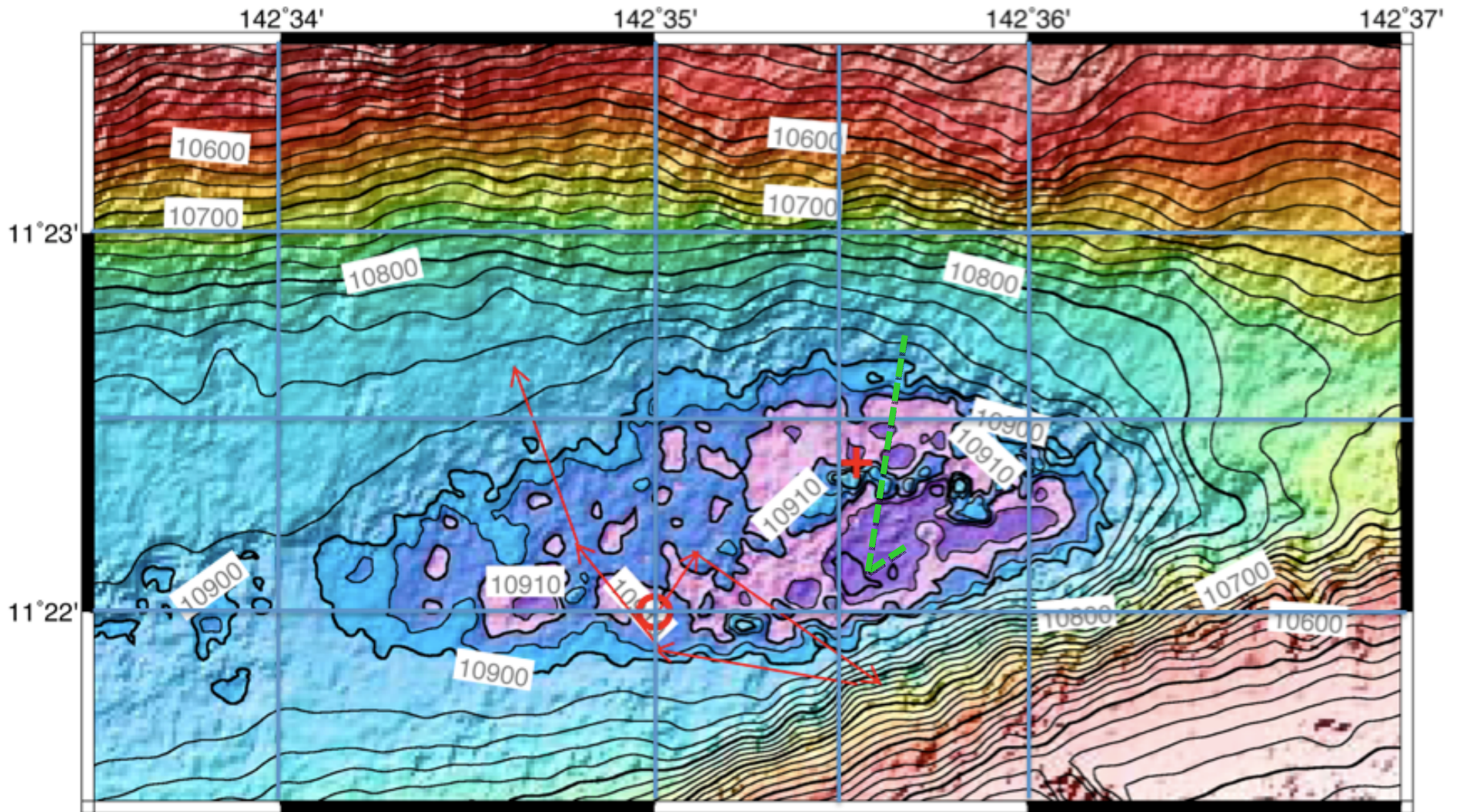
Bait for lander  
- (raw chicken  
from galley)



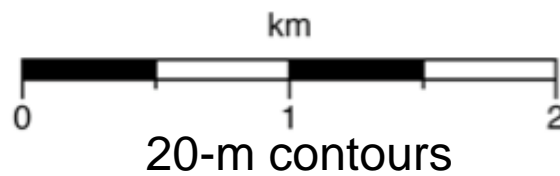
**Giant amphipods**



# Mar. 26, 2012, DEEPSEA CHALLENGER, Dive 10 Track

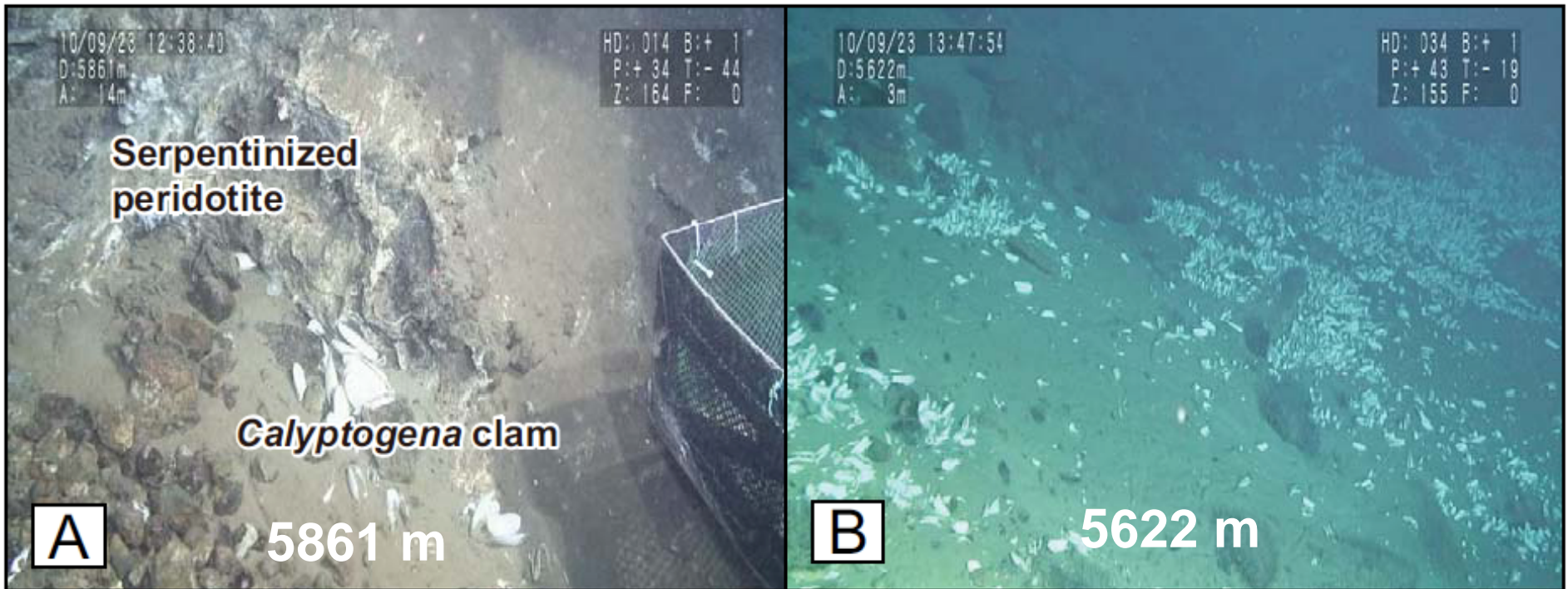


+ Kaiko ROV  
deepest point



Nereus →  
HROV track

Shinkai Dive at 143° 3'E - Shinkai Seep Field,  
Ohara et al. (2012), PNAS



These communities are associated with serpentinization at seeps and the base of the food chain is also likely Archaea.

A question - can Archaea ride the plate down, and inoculate seeps from below?

Kevin Hand (JPL) lander imagery  
Sirena Deep 10,880m

Talus with sediments overlain.  
Evidence of serpentinization  
shown in subsequent slides.

~12"

Filamentous 'hairs' along  
outcrop rocks most likely  
microbial mat structures.

