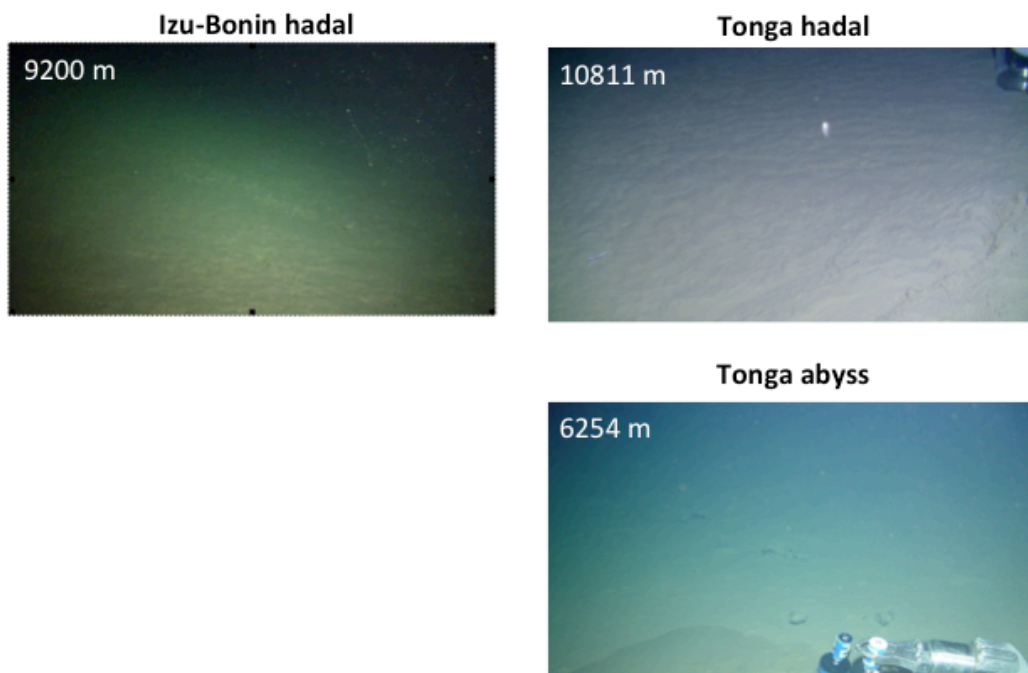
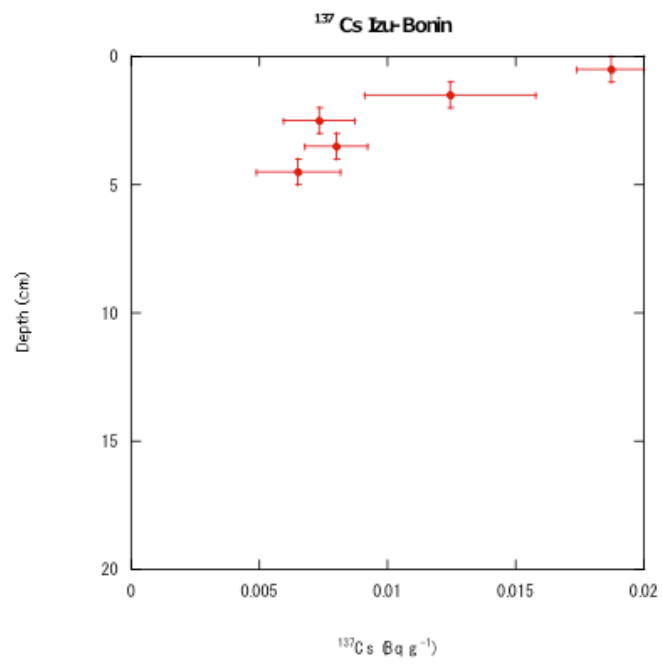


Supplementary Table S1: Positions of the Lander deployments and sediment sampling

	Izu-Bonin Trench		Tonga Trench	
	Hadal Site	Abyssal Site	Hadal Site	Abyssal Site
Positions Lander				
Latitude Longitude water depth (m)	UD-1 N 34° 00.3008' E 141° 59.9811' 9150m		TT 2-3 S 23° 16.5148' W 174° 44.8747' 10807m	TT 1-1 S 23° 36.6771' W 174° 16.8787' 6256m
Latitude Longitude water depth (m)	UD-2 N 34° 00.2461' E 142° 00.0697' 9255m		TT 2-4 S 23° 16.5436' S 174° 45.2294' 10805m	TT 1-2 S 23° 36.6344' W 174° 16.8133' 6253m
Positions Cores				
Latitude Longitude water depth (m)	CS-1 N 34° 00.1782' E 142° 00.0855' 9262m		2-1 S 23° 16.4294' W 174° 44.9826' 10800m	Dive #1370 S 23° 36.7727' W 174° 17.3064' 6254m
Latitude Longitude water depth (m)	CS-2 N 34° 00.1017' E 142° 00.0235' 9260m		2-3 S 23° 16.5085' S 174° 45.1347' 10807m	
Latitude Longitude water depth (m)	CS-3 N 34° 00.2156' E 142° 00.1069' 9149m			



Supplementary Fig. S1: Images of the seafloor from the three investigated sites. Hadal images are extracted from video recordings of the sediment sampler lander system. The abyssal image was taken during Shinkai6500 dive #1370. Amphipods and trace on the seafloor are visible at all sites.



Supplementary Fig. S2: ¹³⁷Cs profile from the Izu-Bonin trench site. Below 5 cm no ¹³⁷Cs was detected.