SITE S700

The bed is of fine muddy sand which does not appear to be subject to hydrodynamic advection or re-shaping. The surface is bioturbated however, mainly by the feeding activities of various sea urchins. This was the most-photographed site: 123 pictures were taken on five site-visits in April, August and December 1995, and in April and July, 1996. A preliminary impression reached from examination of all these photographs suggests that the presence (or detectability) of the benthos may be seasonal.

Reference No: II/41/5/26:

Site:	S700
Cruise:	Challenger CH121A
Position:	56º 28.58' N approx.
	09º 09.86' W approx.
Depth:	700 m approx.
Date:	17th August 1995.
Time:	05:00:12 GMT

This picture is of a bed of fine muddy sand which shows no evidence of hydrodynamic reworking. The benthic community is dominated by a dense population of the white brittlestar *Ophiocten gracilis*, the largest being 1 cm across the disc and 5 cm across the arms approx.; many have raised their central discs above the bed by flexing their arms. There are also three irregular spatangoid sea urchins, *Spatangus raschi* (8 cm diameter approx.) visible near the top right corner, and some synaphobranchid eels (length 15 cm approx.). The view looks towards the NNW.

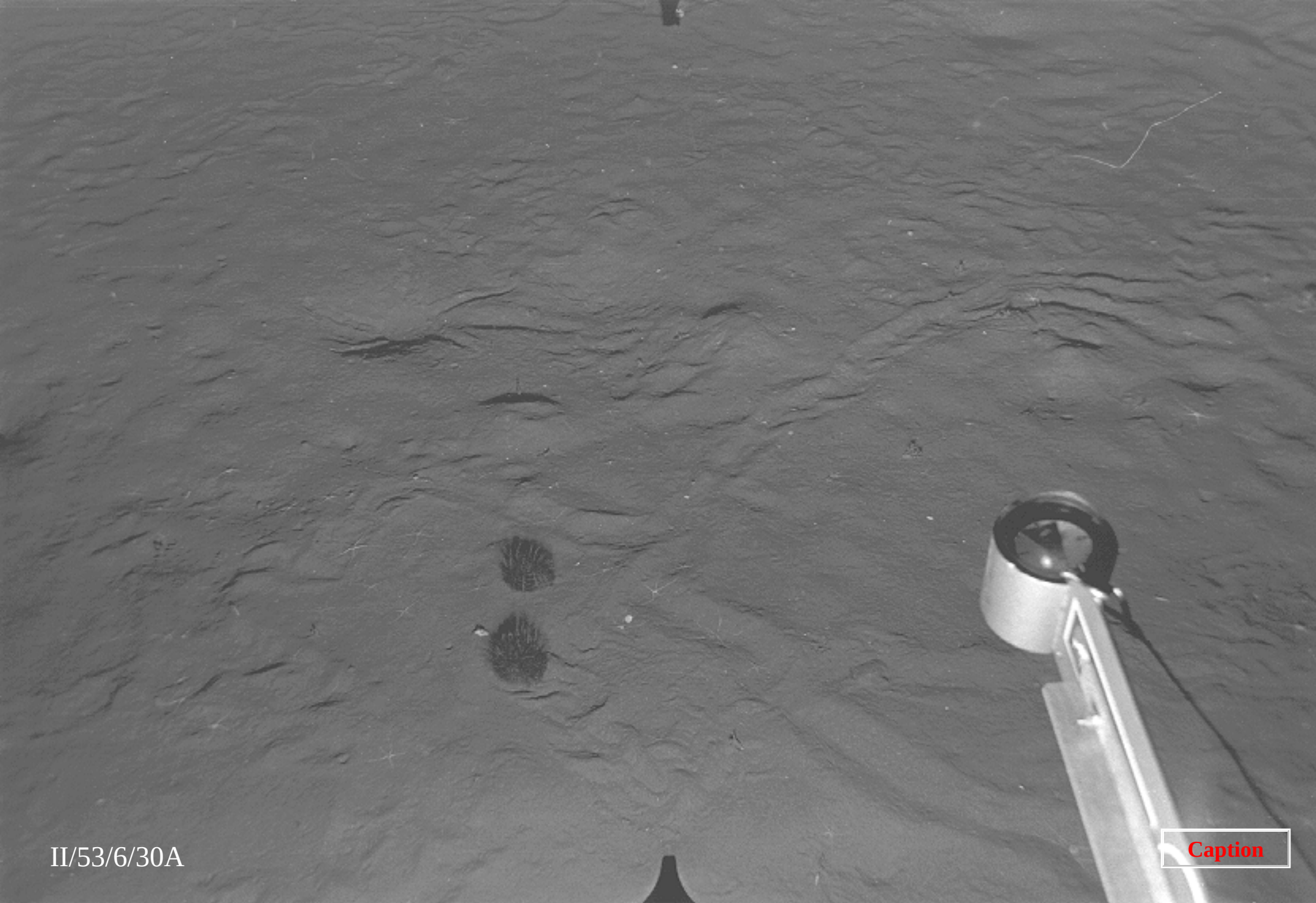
II/41/5/26

Caption

Reference No: II/53/6/30A:

Site:	S700
Cruise:	Challenger CH123B
Position:	56º 27.81' N approx.
	09º 09.70' W approx.
Depth:	700 m nominal
Date:	13th December 1995.
Time:	15:40 GMT approx.

This photograph shows a bed of fine muddy sand which displays no evidence of hydrodynamic reworking. Two irregular spatangoid sea-urchins *Spatangus raschi* (diameter 7 cm approx.) are leaving convoluted feeding-trails; there are a very few white brittlestars, *Ophiocten gracilis*. There is the imprint of a large sea star, approx. 25cm across the arms, left of centre, and several smaller sea star imprints, mostly above the large one. There is little evidence of a burrowing benthic community. There is a scratch on the negative at the top right corner. The view looks towards the SSW.



II/53/6/30A

Caption

Reference No: II/45/3/10:

Site:	S700
Cruise:	Challenger CH126B
Position:	56º 29.08' N
	09º 10.13' W
Depth:	700 m approx.
Date:	30th April 1996.
Time:	06:48:29 GMT

In this picture, the bed is of fine muddy sand, and the top-left shows eroded traces of ripples that were possibly formed by currents from the NW or SE. However, there is no evidence of recent sediment movement caused by benthic currents. There are three irregular spatangoid sea urchins, *Spatangus raschi* (diameter 7 cm approx.); that nearest the camera is leaving a characteristic "tank track" trail behind it. At top left, a sea star is partially burrowed in the sediment; it is 15 cm approx. across the arms. There is also a dense population of the white brittlestar *Ophiocten gracilis,* along with tube-dwelling cerianthid anthozoans. The latter all have their arms fully extended and are inclined towards the NNE. The view looks towards the NW.

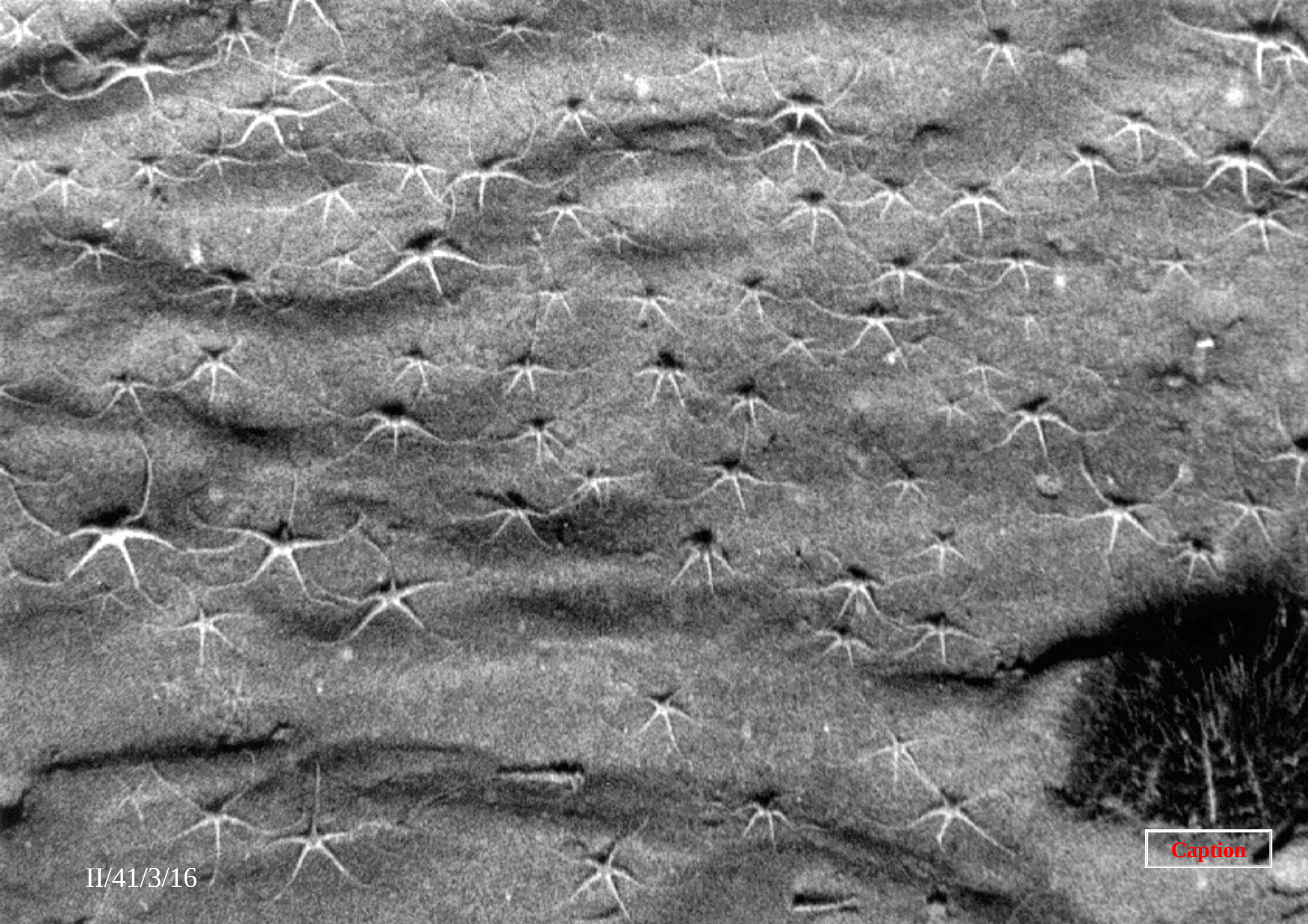
II/45/3/10

Caption

Reference No: II/41/3/16 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH121A
Position:	56º 28.53' N approx.
	09º 09.87' W approx.
Depth:	701 m approx.
Date:	17th August 1995.
Time:	04:44:38 GMT

A dense assemblage of white brittlestars, *Ophiocten gracilis*, is seen, showing a similar posture to those in photograph II/45/3/10, together with an irregular spatangoid sea urchin *Spatangus raschi*, which is partially buried in the surface sediment. There is a small hermit crab beside the urchin.



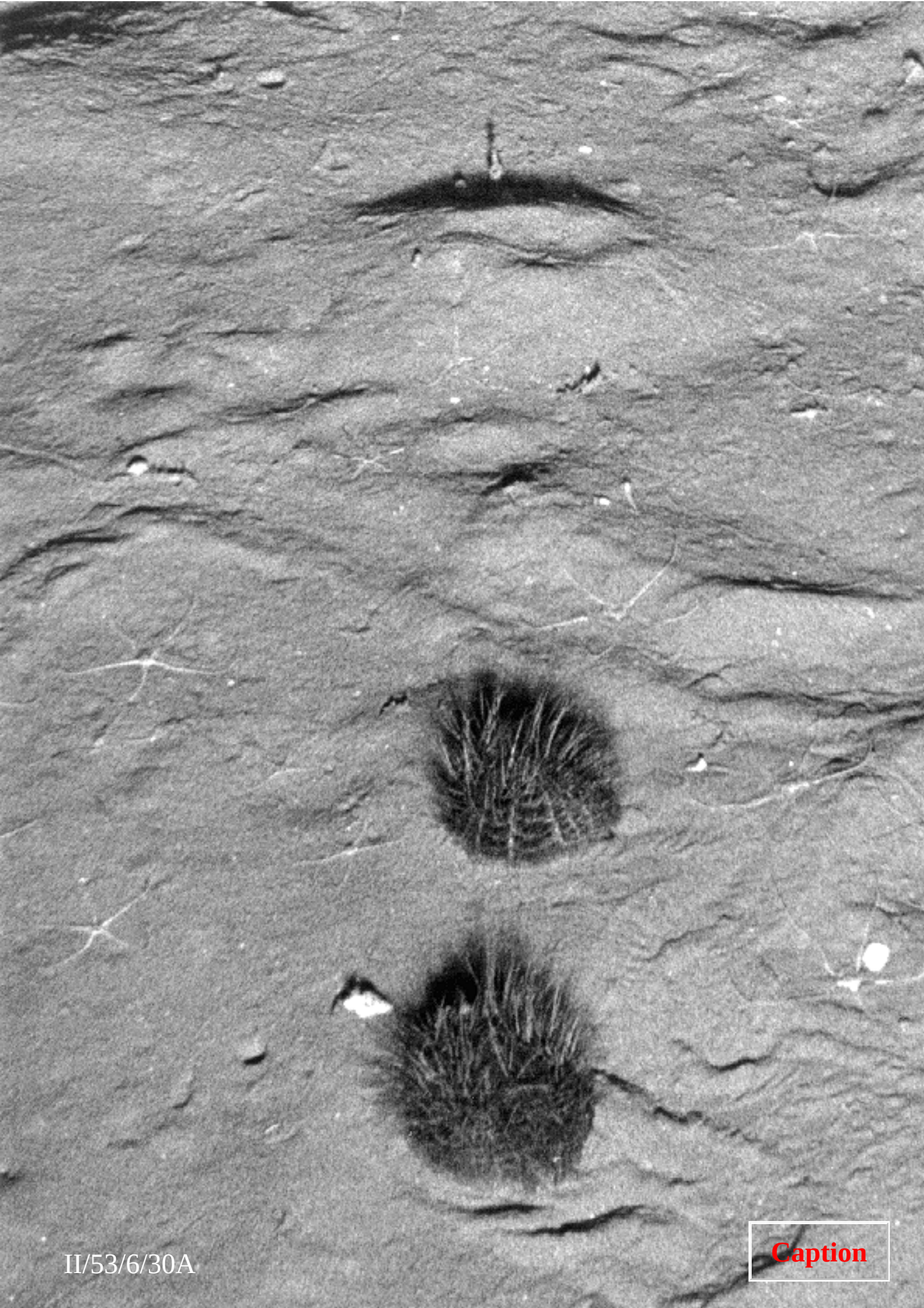
Caption

II/41/3/16

Reference No: II/53/6/30A (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH123B
Position:	56º 27.81' N approx.
	09º 09.70' W approx.
Depth:	700 m nominal
Date:	13th December 1995.
Time:	15:40 GMT approx.

Two irregular spatangoid sea-urchins *Spatangus raschi*, each 6 cm in diameter approx., are producing characteristic "tank track" trails in the fine surface-sediment of the bed. A number of white brittlestars, *Ophiocten gracilis*, are visible partially buried in the surface-sediment.



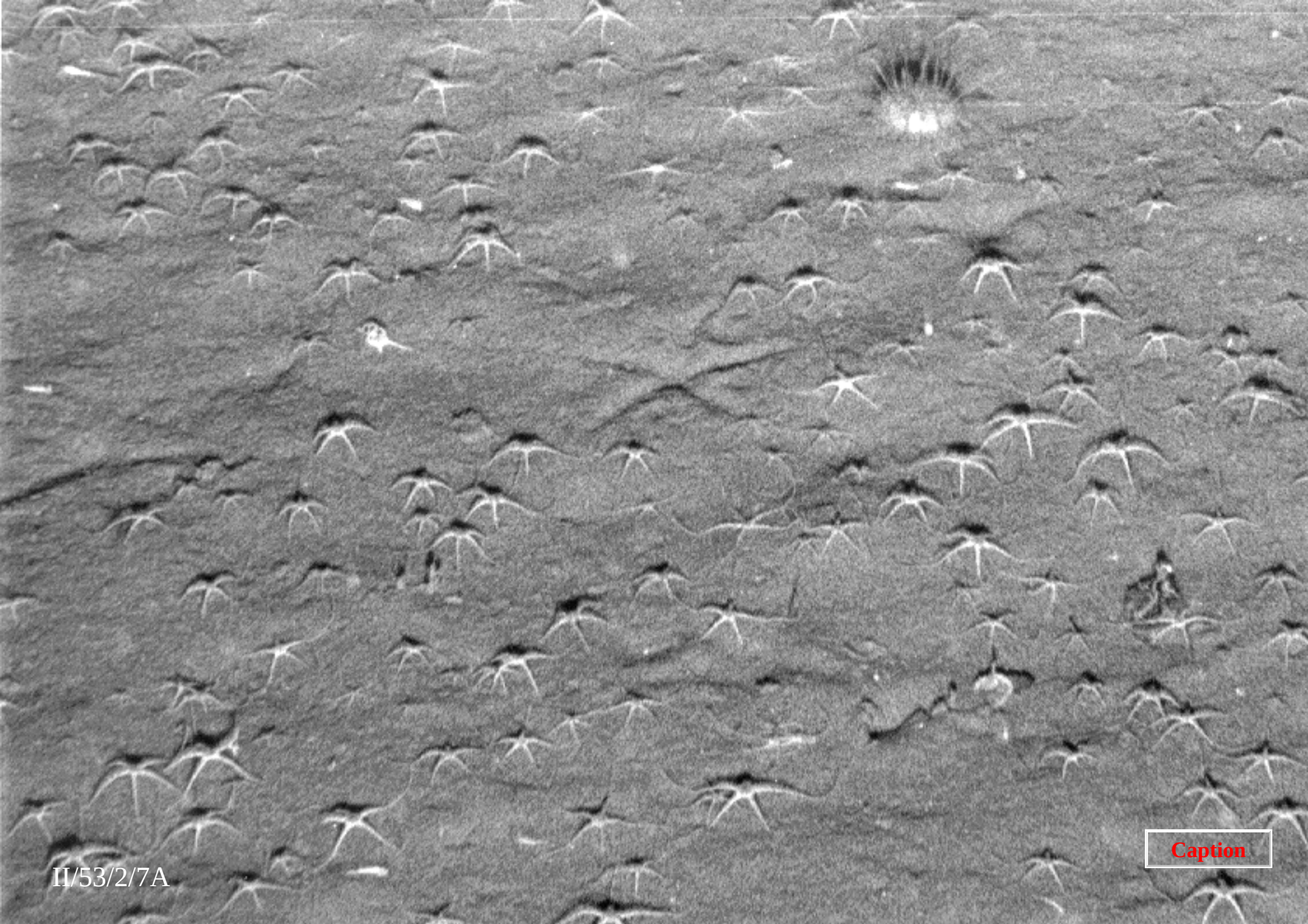
II/53/6/30A

Caption

Reference No: II/53/2/7A (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH123B
Position:	56º 27.68' N approx.
	09º 09.72' W approx.
Depth:	700 m nominal
Date:	13th December 1995.
Time:	15:24:53 GMT

A dense assemblage of white brittlestars, *Ophiocten gracilis*, are seen showing the same posture, with the disc raised off the sea bed, as in photographs II/45/3/10 and II/41/3/16, together with a regular sea urchin (*Echinus* sp.), test-diameter 3 cm approx.



II/53/2/7A

Caption

Reference No: II/45/3/11A (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH126B
Position:	56º 29.08' N
	09º 10.15' W
Depth:	700 m approx.
Date:	30th April 1996.
Time:	06:50:30 GMT

A group of white brittlestars, *Ophiocten gracilis*; several are probably in active movement, "rowing" themselves over the sediment using four of their arms, with the remaining arm held upwards facing towards (or occasionally trailing behind) the direction of movement. Two tube-dwelling cerianthid anthozoans are inclined towards the left.

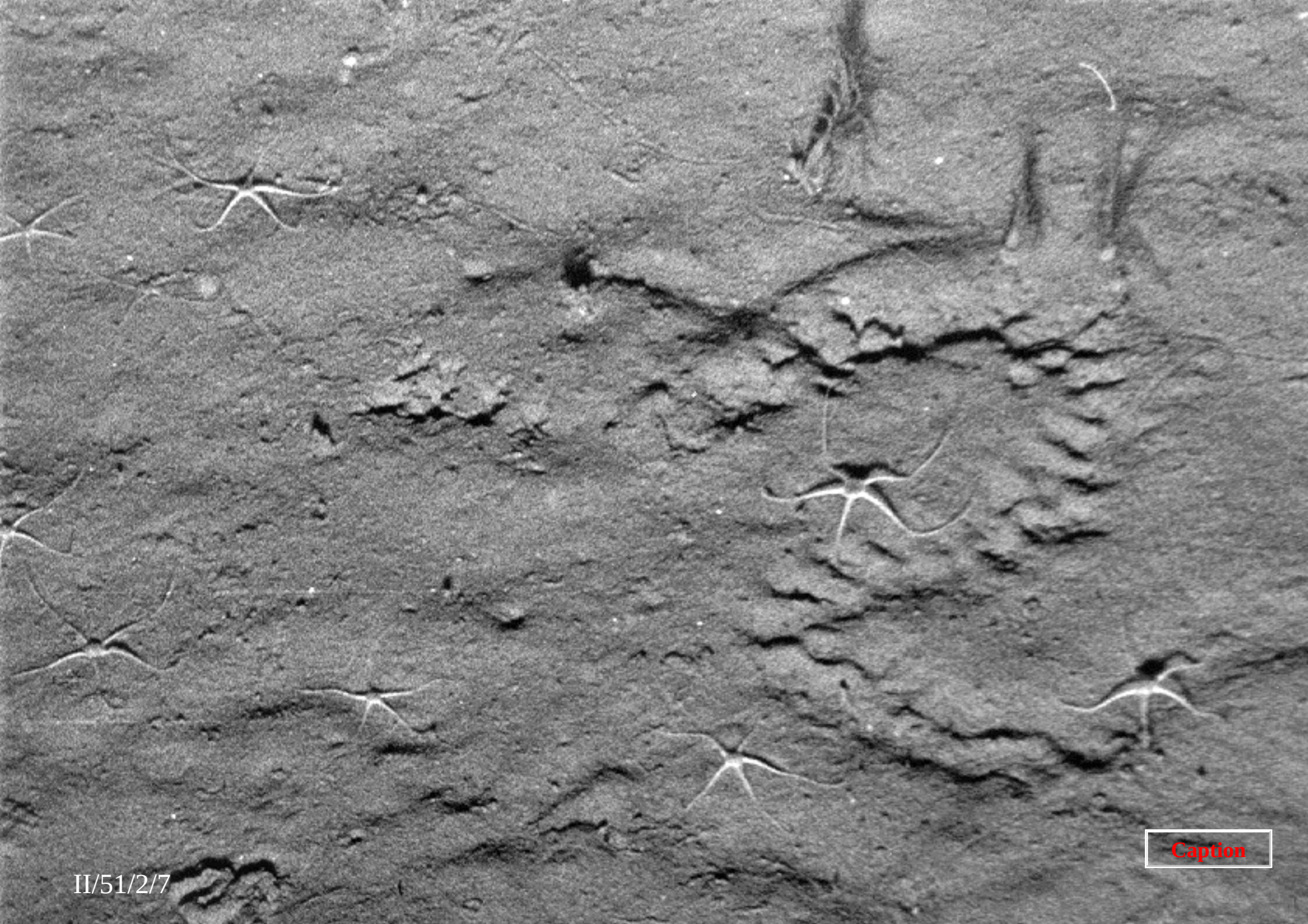
II/45/3/11A

Caption

Reference No: II/51/2/7 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH128B
Position:	56º 26.19' N
	09º 09.97' W
Depth:	725 m
Date:	29th July 1996.
Time:	22:26:57 GMT

A sinuous series of "single-file footprints" in the surface sediment is seen; similar marks appear in several pictures. Their cause is unexplained. There are several of the white brittlestar *Ophiocten gracilis* and three tube-dwelling cerianthid anthozoans which are inclined towards the right.



Caption

II/51/2/7

Reference No: II/51/2/9 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH128B
Position:	56º 26.19' N
	09º 10.00' W
Depth:	727 m
Date:	29th July 1996.
Time:	22:29:11 GMT

Three tube-dwelling cerianthid anthozoans are at the centre of the picture. The nearer one on the right is facing directly towards the camera - the arms, which have barred pigmentation, form a rosette approx. 4 cm in diameter. The anthozoans are surrounded by white brittlestars, *Ophiocten gracilis*, some of which appear to be in active movement (see also photograph II/45/3/11A). The others have the raised posture seen, for example, in photographs II/45/3/10, II/41/3/16 and II/53/2/7A.

The white line across the centre is caused by a scratch on the negative. Contrast has been maximised to differentiate the anthozoans from the silty background.

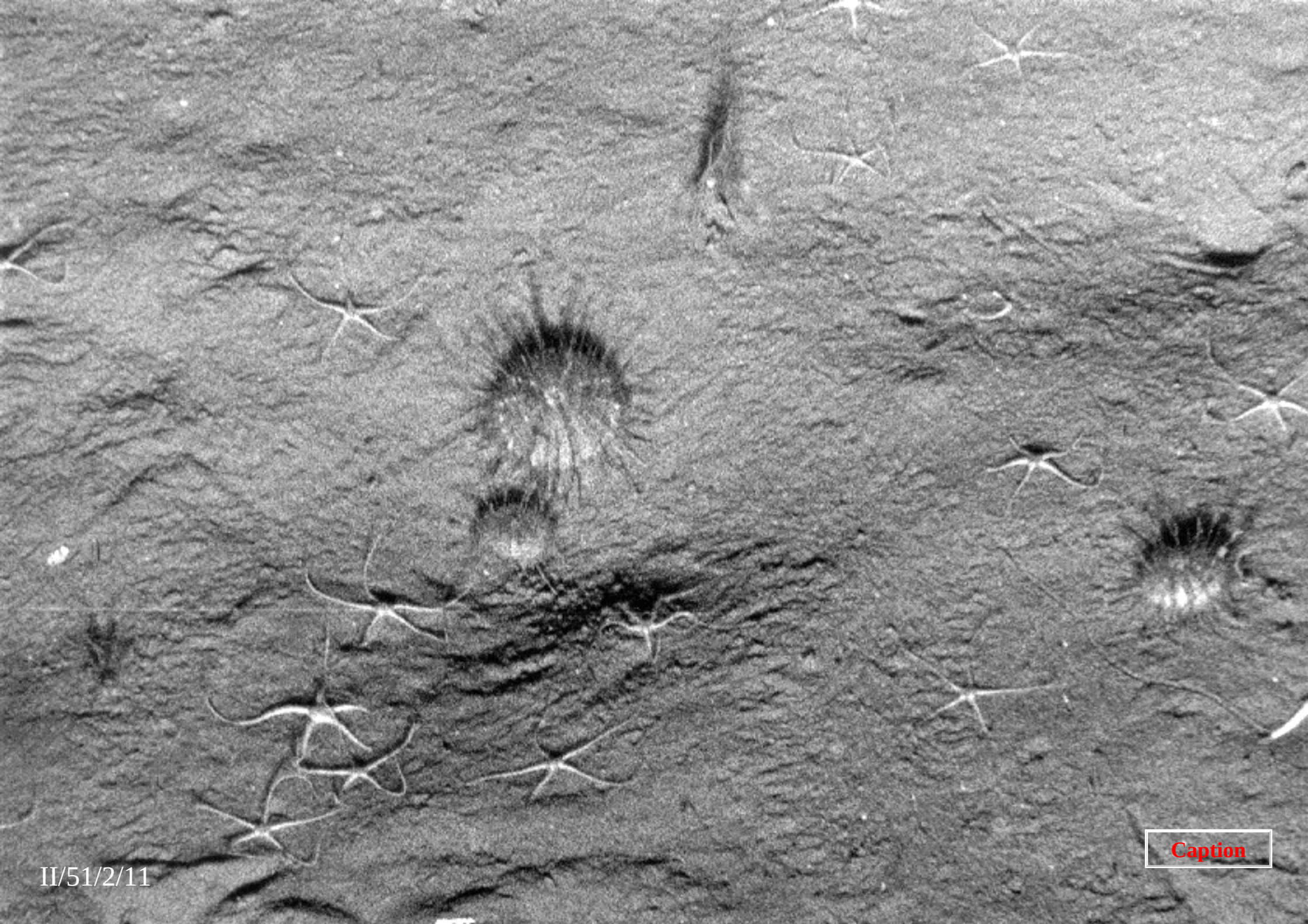
II/51/2/9

Caption

Reference No: II/51/2/11 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH128B
Position:	56º 26.18' N
	09º 10.00' W
Depth:	726 m
Date:	29th July 1996.
Time:	22:31:21 GMT

Three regular similar sea-urchins (*Echinus* sp.) of differing size are seen in a field of white brittlestars, *Ophiocten gracilis,* and tube-dwelling cerianthid anthozoans. The sediment-surface has a stippled appearance, possibly as a result of being reworked by the spines of the urchins. There are two sea star imprints in the lower corners of the image.



Caption

II/51/2/11

Reference No: II/51/4/22 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH128B
Position:	56º 26.20' N
	09º 10.00' W
Depth:	724 m
Date:	29th July 1996.
Time:	22:43:26 GMT

A slender synaphobranchid eel swims in front of the denuded test of a sea urchin *Spatangus raschi.* A gastropd mollusc is visible on the top of the test, perhaps feeding on it.

Caption

II/51/4/22

Reference No: II/51/5/23 (part-frame enlargement):

Site:	S700
Cruise:	Challenger CH128B
Position:	56º 26.19' N
	09º 10.02' W
Depth:	725 m
Date:	29th July 1996.
Time:	22:44:30 GMT

A small whelk (probably *Troschelia berniciensis*) with its siphon fully extended through the siphonal groove of the shell is shown in a field of white brittlestars, *Ophiocten gracilis*, many of which are nearly buried in the surface sediment. The whelk has no obvious trail behind it, so may not be actively moving.

Caption

II/51/4/23