

ATLANTIC THERMAL VENTS. THE RECENT DISCOVERY OF THE LUCKY STRIDE SITE OFF THE AZORES.

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Along the mid-Atlantic ridge two important fields of thermal vents with their peculiar associated fauna were discovered in recent years (1985). They were called TAG (26° lat. N) and Snake Pit (23° 22'.94 lat. N). Seep communities are also known from different places of the Atlantic.

In May 1993 a new field of thermal vents, the Lucky Stride side, was observed and sampled for the first time during the dives of the Alvin submersible. The site is located on the mid-Atlantic ridge, off Azores, by 37° 18' lat. N and was discovered by American geologists the year before.

The depths of the rich vent area are comprised between 1620 and 1710 m. Ambient water was close to 4°C and the observed maximum water temperature of the smokers was 327°C.

The community physiography was dominated by very rich mussel beds (*Bathymodiulus* ?). Bresiliid shrimps were also very abundant. Polychaetes (Errantia), Amphipods and Gastropods were collected as well as a large pink sea-urchin, that was abundant. These animals were living in temperatures between 5.7 and 13°C.

Typical thermal vent fishes were not recorded during the dives. Some bathyal fishes living in ambient water near the bottom (eg. *Deania calcea*) were observed around the thermal vent field. *Hydrolagus mirabilis* was collected in the vicinity of some of the smokers. *Cataetys laticeps* was observed and collected on the mussel beds or on their vicinity in heated water (5.7 to 13°C). A small morid fish was also observed in a rock cavity surrounded by mussels.