ECOSYSTEMS

The Huinay Estuary and the Comau Fjord combined exhibit all of the general features of the fjord systems of Northern Patagonia, which includes:

a) (a) Stretches of sedimentary marshlands at the mouths of the rivers that create estuary systems that are highly impacted by the tides.
b) (b) Abrupt increases in depth along a large part of the fjord walls.
c) (c) Arboreal vegetation that is always green that reaches the high tide line, providing the sea with large volumes of organic material that is quickly and efficiently recycled by marine organisms.
d) (d) The absence of direct ocean tidal surges, only the presence of waves caused by the wind.
e) (e) Abundant rainfall that causes there to be a surplus of fresh water, forming a surface layer with low salinity in the fjord.

Ocean water with high salinity enters under the surface layers of brackish water, allowing for the development of fauna in calm waters in poorly-lit environments. Primary productivity is concentrated in the surface layer. Detritivores and filter-feeders are predominant below this layer, along with its respective food chain.

The majority of the fjord's research areas are along its edges, due to the barriers to accessibility as a result of the extreme depths reached by the granite walls. High-diversity areas are typically found in vertical or protruding settings, most likely due to the lack of sedimentation in these locations. An increase in diversity can also be observed in the areas close to the mouth of the fjord, where the surface layer of fresh water is much thinner.

The superficial layer with low salinity has great influence on the diversity, which can be visibly witnessed in the increase in the diversity of fauna below 10 meters. Up to a depth of 10 meters, the community is dominated by only three species, mostly mytilidae. The community becomes more diverse below this layer, and patches of cold-water coral form a habitat for different vertebrate and invertebrate species. Gorgonia coral provide the substrate for different types of hidrozoe and bryozoa.