

Orange roughy

Large gas bladder species

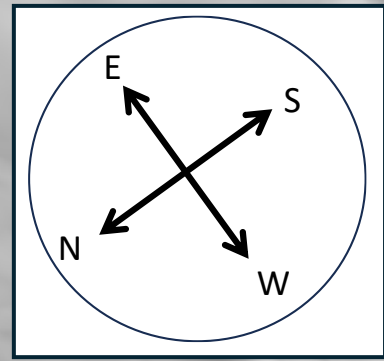
600 m

800 m

1000 m

3 km

3 km



Commentary

- St Helens Hill is a large seamount off the East coast of Tasmania. It ranges from 1000m to 600m below sea level.
- Fished since 1989, the seamount has historically been an area of high catch rates for Orange Roughy fishers due to the spawning aggregations that are found there.
- In 2005, St Helens Hill was closed to fishing to allow stocks to recover. The area was reopened in 2015. Today, St Helens Hill forms the largest part of the Eastern Orange Roughy fishery.
- Orange Roughy is fished by trawl, where nets are towed behind a boat and kept open by trawl doors which act like airplane wings to keep the mouth of the net open wide. There are sensors on the fishing gear to keep trawl doors off the seabed, to limit impact on corals and marine habitats.
- The orange roughy, highlighted in yellow and orange in this image help demonstrate how fishers catch the fish. Fishers try not to target the largest aggregations as they will damage nets and ruin the quality of the catch. Instead, fishers look to skim the outside of a spawning aggregation, ensuring the highest quality fish and reducing risks to crew when retrieving the fishing gear. Looking at the top of the Orange Roughy aggregations further away from the seabed, fishers use highly specialised instruments to determine where the fish and the fishing gear are. The trawl then fishes down the hill, from top to bottom, peeling away from the spawning aggregation when the desired catch is reached.
- If fishers over-estimate how many fish they have caught, there is a spillover window in the fishing gear which allows unwanted fish to escape the net. This would operate similar to an overflow drain in a bathtub.
- Orange Roughy fishery management areas are intentionally designed to be very small, ensuring fishers stick to historical trawl footprints. This restrictions helps remove the environmental uncertainty when fishers undertake exploratory fishing in fishing grounds that are less well understood.