

ORANGE ROUGHY

From overfishing to sustainable delicacy -
a brief timeline of how the science and management of New Zealand's orange
roughy fisheries have advanced in the last three decades

Image CSIRO

DEVELOPMENT OF FISHERY

1970-80s

Orange roughy fisheries first developed

Little known about roughy. Assessed as 'typical' fast-growing, productive fish. Catches peaked at 54,000 t in 1989

1980-90s

Trawl surveys used to assess stocks

Trawl and egg surveys used to assess stock sizes of limited utility

1990s

Overfishing so catches are reduced

Stock sizes decline. Roughy assessed to have low productivity. Catches reduced to 20,000 t, separate management of sub-stocks introduced & some fisheries closed



REBUILDING OF STOCKS

1998

Development of acoustic surveys

Quota owners commission own research. Australia's CSIRO began developing world-leading multi-frequency acoustics to better assess biomass

2000s

Further closures for rebuilding

Further fisheries were closed to rest & rebuild the stocks faster. Catches reduced to a low of 5,300 t in 2013

Mid 2000s

Improved acoustic survey techniques

Improvements are made to the acoustic surveys to more accurately assess the biomass of the main roughy fisheries



CERTIFIED AS SUSTAINABLE

2014

Successful stock assessment model developed

Bayesian assessment model developed. Four largest stocks assessed to be increasing in size, three rebuilt to within management targets. Less than 5% of adult roughy caught to maintain sustainable stocks

2016

Three largest fisheries certified sustainable by MSC

Independent assessment of the three largest roughy fisheries (>60% of catch) confirms these are sustainable & awards Marine Stewardship Council (MSC) certification

Today

Quota owners remain committed to the long-term sustainability of these fisheries & continue to invest in world-leading science & management



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