An underwater photograph showing four fish, likely rockfish, swimming in a kelp forest. The fish are light-colored with some darker spots. They are surrounded by dark, leafy kelp plants. The water is a deep blue-green color.

Channel Islands National Park's Kelp Forest Monitoring Program

Protocol reference guide for
ROVING DIVER FISH COUNT

Brett Seymour

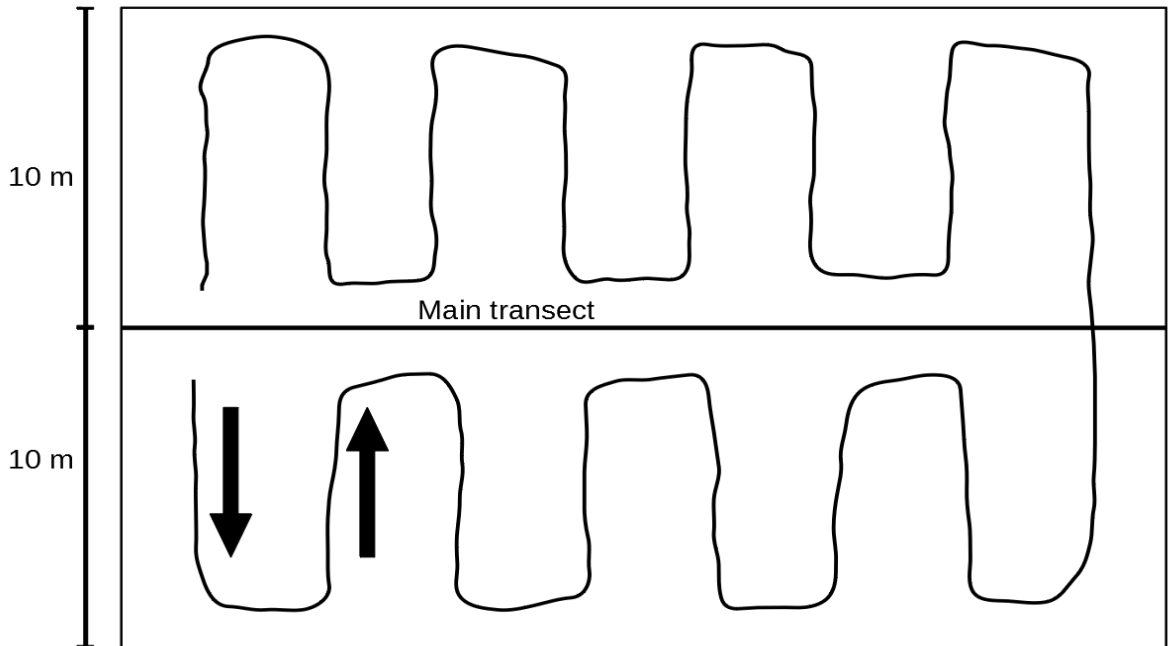
Abstract

Roving diver fish count (RDFC) is a method for estimating species density, abundance, and diversity of fish populations. RDFC is a 30-minute timed protocol in which the 2,000 square meter site is surveyed from top to bottom. All fish are counted in that time period and every 5 minutes a new time score is given to new species of fish seen thereafter. Once the count is totaled, an abundance score is applied to each species based on the total number counted.

RDFC aims at counting all fish within 30 minutes. This means fish in the canopy and fish underneath rock ledges or obscured by algae. This protocol is ambitious and involves a lot of swimming and looking around.



Here is a simple pattern that should be followed to ensure coverage of the site. The starting point need not be at either end of the site; indeed it is often begun directly under the boat.



Remember to look in the canopy periodically. If starting your dive with RDFC, spend the first few minutes in the canopy. If ending your dive with RDFC, spend a few minutes on the way back to the oxygen bar.



Start by writing down the name and count for the first fish you encounter. Continue for five minutes before drawing a line under your last species name. Continue adding to the count of previously observed fish. Only add new names as they come up. The score category starts at 10 (for 0-5 minutes) and counts down to 5 (25-30 minutes). At the end of the dive, score and total your fish before dictating your results to a data recorder.

	Score	Common Name	Count
0-5 minutes	10	Garibaldi	
		Kelp Bass	
		Blacksmith	100, 75
5-10 minutes	9	Senorita	50, 150
		Sheephead, fem.	
		Treefish, juv.	
10-15 minutes	8	Blackeye Goby	
		Opaleye	10
15-20 minutes	7		

