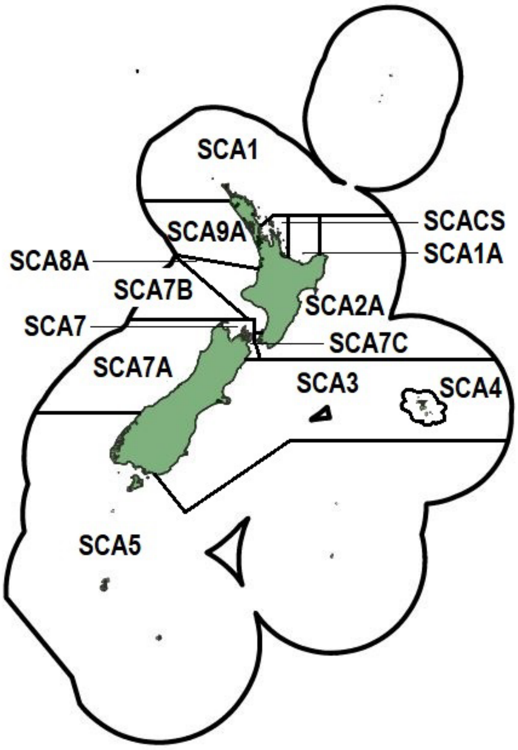
INTRODUCTION – SCALLOPS (SCA)

(*Pecten novaezelandiae*)
Kuakua, Tipa



1. INTRODUCTION

Scallops are important shellfish to both commercial and non-commercial (customary and recreational) fishers.

For each stock, the Total Allowable Catch (TAC), allowances for customary and recreational fisheries and other sources of mortality, and Total Allowable Commercial Catch (TACC) are given in Table 1 (all values in meatweig100ht – adductor muscle and roe only).

Table 1: TAC, customary allowance, recreational allowance, other sources of mortality allowance, and TACC (all in tonnes) for all scallop stocks.

Fishstock	TAC	Customary allowance	Recreational allowance	Other mortality	TACC
SCA 1 (Northland)	8.5	7.5	0	1	0
SCA 1A (Eastern Bay of Plenty)	8	3	3	1	1
SCA CS (Coromandel)	11	10	0	1	0
SCA 2A (part Central (East))	4	1	1	1	1
SCA 3 (South-East and part Chatham Rise)	4	1	1	1	1
SCA 4 (Chatham Islands)	26	1	1	1	23
SCA 5 (Southland and Sub-Antarctic)	8	3	3	1	1
SCA 7 (Nelson/Marlborough)	520	40	40	40	400
SCA 7A (West Coast)	4	1	1	1	1
SCA 7B (North and West of Farewell Spit)	2	0	0	1	1
SCA 7C (Clarence Pt to West Head, Tory Channel)	4	1	1	1	1
SCA 8A (part Central (Egmont))	4	1	1	1	1
SCA 9A (part Auckland (West))	26	12	12	1	1

Specific Working Group reports are given separately in chapters for SCA 1, SCA CS, and SCA 7.

Some harbours and enclosed waters in the Northland, Coromandel and Nelson/Marlborough scallop fisheries used to be closed to commercial dredging but remained open to non-commercial fishers until these fisheries were closed. Some other areas around New Zealand are closed to both commercial and recreational fishers. Closures by area have a considerable history of use in New Zealand scallop fisheries, for both allocation issues and more general issues in scallop management.

1.1 Commercial fisheries

Scallops were introduced to the Quota Management System between 1992 and 2006. All scallop stocks, other than SCA 7, are included on the Second Schedule of the Fisheries Act 1996, which allows for the TAC, and potentially the Annual Catch Entitlement (ACE), to be increased within a fishing season after consideration of information about abundance during that fishing year. At the close of the year, the TAC reverts to the level that applied at the beginning of the year. There have not been any such in-season increases for scallop stocks since 2012.

In 1996, because of the rotational fishing and stock enhancement management strategy being used to manage the stocks in SCA 7, that stock was placed on the Third Schedule of the Fisheries Act 1996, and was, therefore, able to have an alternative TAC set under s14 of the Act.

The fishing year for scallops is from 1 April to 31 March. Until the Northland (SCA 1), Coromandel (SCA CS) and Nelson/Marlborough (SCA 7) scallop fisheries closed in 2022–23, 2023–24 and 2016–17 respectively, the commercial fishing seasons and minimum legal sizes varied by scallop stock (Table 2). The period of fishing within the season may have varied from year to year depending on when the industry decided to operate.

Table 2: Commercial fishing seasons and minimum legal sizes (MLS).

Fishstock	Commercial fishing season	MLS (mm)
SCA 1 (Northland)	15 July to 14 February	100
SCA CS (Coromandel)	15 July to 21 December	90
SCA 7 (Nelson/Marlborough) (until closure in 2016–17)	15 July to 14 February	90

Historical landings for the three major commercial fisheries are shown in Figure 1.

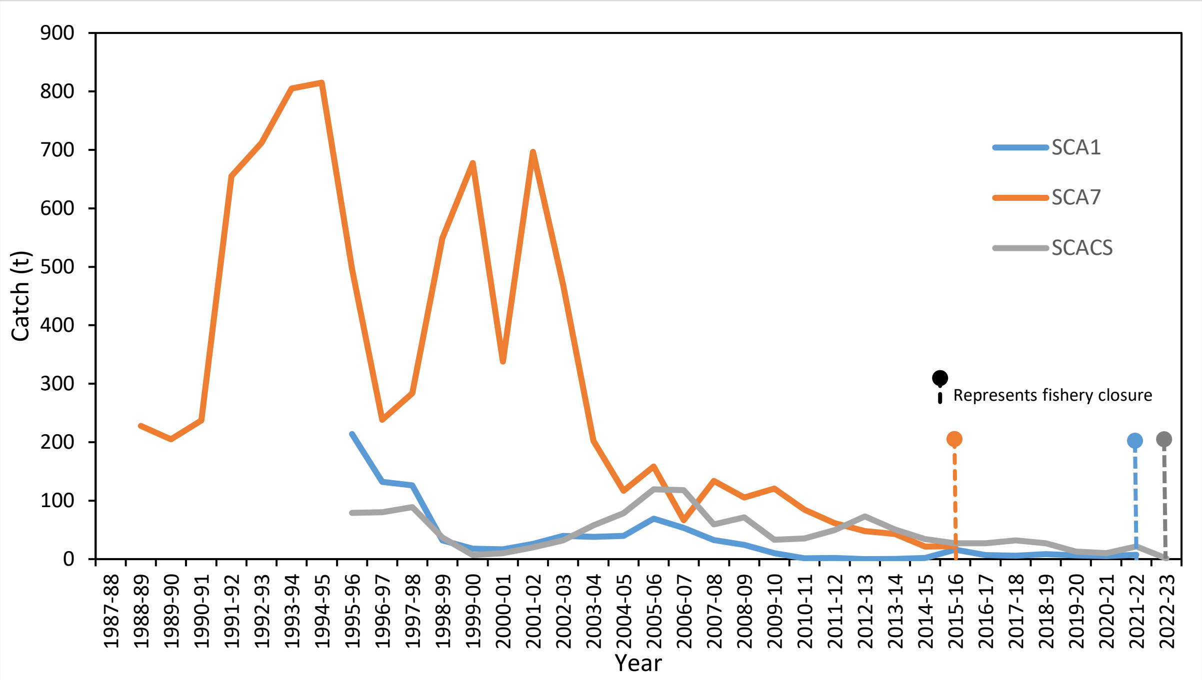


Figure 1: Historical landings for Nelson/Marlborough (SCA 7), Northland (SCA 1), and Coromandel (SCA CS) scallop fisheries. Dotted line represents fishery closure.

All targeted commercial scallop fishing in New Zealand used dredges (see review by Beentjes & Baird 2004). In the SCA 1 and SCA CS fisheries, commercial fishers used a self-tipping 'box' dredge' (up to 2.4 m wide, fitted with a rigid tooth bar on the leading bottom edge). In the SCA 7 fishery, commercial fishers towed one or two 'ring-bag' dredges up to 2.4 m in width with heavy tickler chains (there are no teeth or tines on the leading bottom edge of the SCA 7 dredges, unlike those of the fixed tooth bars used on dredges in the northern fisheries).

1.2 Recreational fisheries

There is a strong recreational interest in scallop harvesting in suitable areas throughout the country, mostly in enclosed bays and harbours. Scallops are usually taken by diving using snorkel or scuba, although the use of small dredges is also common practice. In some areas, for example in some harbours, scallops can be taken by hand from the shallow subtidal and even the low intertidal zones (on spring tides), and, in storm events, scallops can be cast onto beaches in large numbers.

The Kaipara Harbour was surveyed most recently in 2017 and led to the closure of the harbour to recreational fishers following the severe decline of the stock (Williams et al. 2018). Commercial fishing for scallops in the harbour was already prohibited (Regulation 21(1)(a) Fisheries (Auckland and Kermadec Areas Commercial Fishing) Regulations 1986).

Regulations governing the recreational harvest of scallops include a minimum legal size, a restricted daily harvest (bag limit), and a recreational fishing season (Table 3). A change to the recreational fishing regulations in 2005 allowed only one diver operating from a vessel to take scallops for up to two nominated safety people on board the vessel, in addition to the catch limits for the divers.

Table 3: Recreational scallop fishing regulations. Note that SCA 1, SCA CS and SCA 7 are currently closed to recreational fishing.

Fishstock	Minimum legal size (mm)	Daily bag limit (no. of scallops per person)	Recreational fishing season
SCA 1 (Northland)	100	20	1 September to 31 March
SCA CS (Coromandel)	100	20	1 September to 31 March
SCA 5 (Stewart Island: Fiordland Paterson Inlet and Port Pegasus)	100	10	1 October to 15 March
SCA 7 (Nelson/Marlborough) (until closure in 2016–17)	90	50	15 July to 14 February

1.3 Customary fisheries

Scallops were undoubtedly used traditionally as food by Māori and remain highly valued. The information on Māori customary harvest under the provisions made for customary fishing can be limited. The numbers reported in the Table 4 are likely to be an underestimate of customary harvest as only the catch approved and harvested in kilograms and numbers are included. The records for the three key stocks are provided in the respective scallop Working Group reports.

Table 4: Fisheries New Zealand records of customary harvest of scallops (approved and reported as weight (kg) and in numbers), since 2006-07. – no data. These numbers are likely to be an underestimate of customary harvest as only the catch approved and harvested in kilograms and numbers are reported in the table [Continued on next page].

	SCA 1A		SCA 5		SCA 9A			
	Numbers		Numbers		Weight (kg)		Numbers	
Fishing year	Approved	Harvested	Approved	Harvested	Approved	Harvested	Approved	Harvested
2006–07	–	–	200	200	–	–	–	–
2007–08	–	–	–	–	–	–	–	–
2008–09	–	–	50	50	–	–	180	70
2009–10	–	–	–	–	–	–	–	–
2010–11	–	–	210	210	–	–	–	–
2011–12	160	160	–	–	–	–	–	–
2012–13	–	–	–	–	–	–	–	–
2013–14	–	–	–	–	20	20	4080	4080
2014–15	–	–	–	–	–	–	–	–
2015–16	–	–	–	–	–	–	–	–

Table 4 [Continued]:

	SCA 1A		SCA 5		SCA 9A			
	Numbers		Numbers		Weight (kg)		Numbers	
Fishing year	**Approved**	**Harvested**	**Approved**	**Harvested**	**Approved**	**Harvested**	**Approved**	**Harvested**
2016–17	440	200	–	–	–	–	–	–
2017–18	–	–	300	300	–	–	–	–
2018–19	–	–	–	–	–	–	–	–
2019–20	–	–	–	–	–	–	–	–
2020–21	–	–	200	200	–	–	–	–
2021–22	–	–	190	190	–	–	–	–
2022–23	–	–	–	–	–	–	–	–
2023–24	–	–	400	400	–	–	–	–
2024–25	–	–	–	–				

1.4 Unreported catch
There is no quantitative information on the level of unreported catch for the scallop stocks.

1.5 Other sources of mortality
Dredging results in incidental mortality of scallops.

An experimental study conducted on predominantly sandy substrates in the Coromandel fishery found that a box dredge (with teeth or 'tines') caused more breakage and incidental mortality in scallops than a ring-bag dredge, although the ring-bag dredge showed poor efficiency on this substrate type in comparison with the box dredge (Cryer & Morrison 1997). Scallops retained by dredges were more likely to be killed than those that were left on the seabed, and there was increasing mortality with increasing scallop size. Total mortality was 20–30% but potentially as high as 50% for scallops that were returned to the water, i.e., those just under the MLS. The incidental mortality caused by dredging substantially changed the shape of yield-per-recruit curves for Coromandel scallops, causing generally asymptotic curves to become domed and decreasing estimates of F_{max} and $F_{0.1}$. Field experiments (Talman et al. 2004) and modelling (Cryer et al. 2004) suggest that dredging reduces habitat heterogeneity, increases juvenile mortality, makes yield-per-recruit curves even more domed, and decreases estimates of F_{max} and $F_{0.1}$ even further (Cryer & Parkinson 2006). More details o a recent review are provided by Johnson et al. (2024).

The applicability of these findings to the use of the ring-bag dredge in the sand/silt substrates in the SCA 7 fishery is unquantified.

The extent of other sources of fishing mortality associated with other bottom contact fishing methods (e.g., bottom trawling and dredging for other species) is unquantified.

2. BIOLOGY

Pecten novaezelandiae is one of several species of 'fan shell' bivalve molluscs found in New Zealand waters. Others include queen scallops and some smaller species of the genus *Chlamys*. *Pecten novaezelandiae* is endemic to New Zealand but is very closely related to the Australian species *P. fumatus* and *P. modestus*. Scallops of various taxonomic groups are found in all oceans and support many fisheries worldwide; most scallop populations undergo large fluctuations. *Pecten novaezelandiae rakiura* is a sub-species found around Stewart Island.

Scallops are found in a variety of coastal habitats, but particularly in semi-enclosed areas where circulating currents are thought to retain larvae.

All references to 'shell length' in this chapter refer to the maximum linear dimension of the shell, in an anterior-posterior axis. Scallops are functional hermaphrodites and become sexually mature at a size of about 70 mm shell length (Williams & Babcock 2005). They are extremely fecund and may spawn several times each year, although spawning is most prolific in spring and early summer (but partial spawning can occur as early as August and as late as March) (Williams & Babcock 2004). Most scallops mature by the end of their first year, but they contribute little to the spawning pool until the end of their second year. Year 1 scallops contain about 500 000 eggs, whereas year 4 and 5 scallops can contain over 40 million (Bull 1976). For scallops observed spawning in laboratory studies, the total number of eggs released per individual scallop (of 78–90 mm shell length) per spawning event ranged from 700 000 to 15 million, with a mean of 6.1 million (Williams 2005). Scallops are broadcast spawners and high densities of scallops are thought to be disproportionately more important for fertilisation success during spawning (Williams 2005), although such predictions may not be borne out when tested experimentally, potentially due to scallops reducing nearest-neighbour distances at low densities (Bayer et al. 2018). Scallop veliger larvae spend about three weeks in the plankton before settling onto epibenthic flora and fauna, which they physically attach to via the secretion of fine byssus threads. Spat presence on algae and hydroids, and complete absence of spat on bare substrates (of mud, sand, and broken shell), suggests settlement occurs mainly on filamentous material (e.g., on red algae attached to *Atrina* horse mussels) (Bull 1976). Byssus attachment has been observed in spat of between 1 and 22 mm shell height, and spat over 8 mm have been observed to be unattached on the seabed (Bull 1976), taking up the free-living habit of juvenile and adult scallops, usually lying recessed in depressions on the seabed and often covered by a layer of sand or silt. Although adult scallops can swim, they appear to move very little (based on underwater observations, the recovery of tagged scallops, and the persistence of morphological differences between adjacent sub-populations). They may, however, be moved considerable distances by currents and storms and are sometimes thrown up in large numbers on beaches.

The very high fecundity of this species, and likely variability in the mortality of larvae and pre-recruits, could lead to high variability in natural annual recruitment. This, combined with variable mortality and growth rate of adults, leads to scallop populations being highly variable from one year to the next, especially in areas of rapid growth and high fishing mortality where the fishery may be supported by only one or two year classes. This variability is characteristic of most scallop populations worldwide and often occurs independently of fishing pressure. Stewart & Howarth (2016) reviewed age truncation effects of fishing on scallops. Fishing truncates the size/age structure which reduces egg production: larger scallops are more fecund but are rare in a fished population, which is typically dominated by smaller, less-fecund scallops (age truncation also potentially reduces the capacity of populations to buffer environmental events and can lead to increased population variability).

For more specific information on individual stocks, please refer to the relevant scallop chapters.

3. STOCKS AND AREAS

Scallops inhabit waters of up to about 60 m deep (apparently up to 85 m at the Chatham Islands) but are more common in depths of 10 to 50 m on substrates of shell, gravel, sand, or, in some cases, silt. Scallops are typically patchily distributed at a range of spatial scales. Some of the beds are persistent and others are ephemeral. The extent to which the various beds or populations are reproductively or functionally separate is not known.

Some work has been conducted on the spatial and temporal genetic structure of the New Zealand scallop. Samples were collected from 15 locations to determine the genetic structure across the distribution range of scallops. The low genetic structure detected was expected given the recent evolutionary history, the large reproductive potential, and the pelagic larval duration of the species (approximately 3 weeks). A significant isolation by distance signal and a degree of differentiation from north to south was apparent, but this structure conflicted with some evidence of panmixia (fertilisation success resulting from random individuals contributing to broadcast spawning). A latitudinal genetic diversity gradient was observed that might reflect colonisation and extinction events and insufficient time to reach migration-drift equilibrium during a recent range expansion (Silva 2015, Silva & Gardner 2015).

A seascape genetic approach was used to test for associations between patterns of genetic variation in scallops and environmental variables (three geospatial and six environmental variables). Although the geographic distance between populations was an important variable explaining the genetic variation among populations, it appears that levels of genetic differentiation are not a simple function of distance. Evidence suggests that some environmental factors such as freshwater discharge and suspended particulate matter can be contributing to the patterns of genetic differentiation of scallops (Silva 2015, Silva & Gardner 2016).

For more specific information on individual stocks, please refer to the relevant scallop chapters.

4. ENVIRONMENTAL AND ECOSYSTEM CONSIDERATIONS

4.1 Role in the ecosystem

Scallops (*Pecten novaezelandiae*) are subtidal, benthic, epifaunal, sedentary, bivalve molluscs, which have a pelagic larval dispersal phase. They exhibit relatively fast growth, variable mortality, and variable recruitment. The rates of these processes probably vary in relation to environmental conditions (e.g., temperature, water flow, turbidity, and salinity), ecological resources (e.g., food, oxygen, and habitat), and with intra- and inter-specific interactions (e.g., competition, predation, parasitism, and mutualism), and the combination of these factors determines the species distribution and abundance (Begon et al. 1990). Scallops are considered to be a key component of the inshore coastal ecosystem, acting both as consumers of primary producers and as prey for many predators. Scallops themselves can also provide structural habitat for other epifauna (e.g., sponges, ascidians, and algae). Shells contribute to sedimentary calcium carbonates.

4.2 Trophic interactions

Scallops are active suspension feeders, consuming phytoplankton and other suspended material (benthic microalgae and detritus) as their food source (Macdonald et al. 2006). Their diet is similar to that of many other suspension-feeding taxa, including other bivalves such as oysters, clams, and mussels.

Scallops are prey to a range of invertebrate and fish predators, whose dominance varies spatially. Across all areas, reported invertebrate predators of scallops include starfish (*Astropecten polyacanthus*, *Coscinasterias muricata*, and *Luidia maculata*), octopus (*Pinnoctopus cordiformis*), and hermit crabs (*Pagurus novaezelandiae*), and suspected invertebrate predators include various carnivorous gastropods (e.g., *Cominella adspersa* and *Alcithoe arabica*); reported fish predators of scallops include snapper (*Chrysophrys auratus*), tarakihi (*Nemadactylus macropterus*), and blue cod (*Parapercis colias*), and suspected fish predators include eagle rays (*Myliobatis tenuicaudatus*) and stingrays (*Dasyatis* sp.) (Morton & Miller 1968, Bull 1976, Morrison 1998, Nesbit 1999). Predation varies with scallop size, with small scallops being generally more susceptible to a larger range of predators.

4.3 Non-target fish and invertebrate catch

A range of non-target fish and invertebrate species are caught and legally released by dredge fisheries for *P. novaezelandiae* scallops. No data are available on the level or effect of this incidental catch and discarding by the fisheries. Non-target fish and invertebrate species catch data are available, however, from various dredge surveys of the scallop stocks, and the non-target catch of the fisheries is likely to be similar to that of the survey tows conducted in areas that support commercial fishing.

Species or groups that have been caught as incidental catch in the box dredges and ring-bag dredges used in surveys of commercial scallop (*P. novaezelandiae*) fishery areas in New Zealand are given in Table 5. Catch composition varies among the different fishery locations and through time.

In the Coromandel scallop stock (SCA CS), a photographic approach was used in the 2006 dredge survey to provisionally examine non-target catch groups (Tuck et al. 2006), but a more quantitative and comprehensive study was conducted using non-target catch data collected in the 2009 dredge survey (Williams et al. 2010), with survey catches quantified by volume of different component categories. Over the whole 2009 survey, scallops formed the largest live component of the total catch volume (26%), followed by assorted seaweed (11%), starfish (4%), other live bivalves (4%), coralline turfing algae (1%), and other live components not exceeding 0.5%. Dead shell (identifiable and hash) formed the largest overall component (45%), and rock, sand, and gravel formed 8%. Categories considered to be sensitive to dredging were caught relatively rarely. Data on the non-target catch of the 2010 and 2012 surveys of SCA CS were also collected but not analysed; those data have been loaded onto the Fisheries New Zealand database 'scallop' for potential future analysis (Williams & Parkinson 2010, Williams et al. 2013).

In the Northland scallop stock (SCA 1), analysis of historical survey non-target catch from a localised deep area within Spirits Bay showed an unusually high abundance and species richness of sponges (Cryer et al. 2000) and led to the voluntary and subsequent regulated closure of that area to commercial fishing.

Table 5: Species or groups categorised by non-target catch type caught as incidental catch in dredge surveys of commercial scallop (*P. novaezelandiae*) fishery areas in New Zealand.

Type	Species or groups
Habitat formers	sponges, tubeworms, coralline algae (turf, maerl), bryozoa
Starfish	*Astropecten*, *Coscinasterias*, *Luidia*, *Patiriella*
Bivalves	dog cockles, horse mussels, oysters, green-lipped mussels, *Tawera*
Other invertebrates	anemones, crabs, gastropods, polychaetes, octopus, rock lobster
Fish	goby, gurnard, John dory, lemon sole, pufferfish, red cod, sand eel, snake eel, stargazer, yellowbelly flounder
Seaweed	*Ecklonia,* other brown algae, green algae, red algae
Shell	whole shells, shell hash
Substrate	mud, sand, gravel, rock
Other	rubbish

In the Southern scallop stock (SCA 7), data on the non-target catch of the 1994–2020 surveys have been collected but not analysed, except for preliminary estimation of the 1998–2013 non-target catch trajectories (Williams et al. 2014).

4.4 Incidental catch of protected species (seabirds, mammals, and fish)

There is no known capture of seabirds, mammals, or protected fish species from *P. novaezelandiae* scallop fisheries.

4.5 Benthic interactions

It is well known that fishing with mobile bottom contact gears such as dredges has impacts on benthic populations, communities, and their habitats (e.g., Kaiser et al. 2006, Rice 2006). The effects are not uniform, but depend on at least: "the specific features of the seafloor habitats, including the natural disturbance regime, the species present, the type of gear used, the methods and timing of deployment of the gear and the frequency with which a site is impacted by specific gears; and the history of human activities, especially past fishing, in the area of concern" (Department of Fisheries and Oceans 2006). The effects of scallop dredging on the benthos are relatively well studied and include several New Zealand studies carried out in areas of the northern fisheries (SCA 1 and SCA CS) (Thrush et al. 1995, Thrush et al. 1998, Cryer et al. 2000, Tuck et al. 2010, Tuck & Hewitt 2013) and the Golden Bay/Tasman Bay region of the southern fishery (SCA 7) (Tuck et al. 2017). The results of these studies are summarised in the Aquatic Environment and Biodiversity Annual Review (Fisheries New Zealand 2020) and are consistent with the global literature (Stewart & Howarth 2016). Generally, impacts vary between habitats, and with increasing fishing intensity there are decreases in the density and diversity of benthic communities and, especially, the density of emergent epifauna that provide structured habitat for other fauna. Other bottom contact fishing gear such as bottom trawls and dredges for other species will also modify scallop habitat.

4.6 Other considerations

4.6.1 Spawning disruption

Scallop spawning occurs mainly during spring and summer (Bull 1976, Williams & Babcock 2004). Scallop fishing also occurs during these seasons and is particularly targeted in areas with scallops in good condition (reproductively mature adults ready to spawn). Fishing also concentrates on high density beds of scallops, which are disproportionately more important for fertilisation success during spawning (Williams 2005). Fishing may therefore disrupt spawning by physically disturbing scallops that are either caught and retained (removal), caught and released, not caught but directly contacted by the dredge, or not caught but indirectly affected by the effects of dredging (e.g., increased suspended sediments, decreased habitat suitability).

4.6.2 Habitat of particular significance to fisheries management

Fisheries New Zealand have developed guidelines on the identification of habitats of particular significance for fisheries management (Habitats of particular significance for fisheries management | NZ Government), and is in the process or reviewing available evidence for the development of an online register of habitats. Certain features of the habitats with which scallops are associated (e.g., fine filamentous algae, near seabed turbidity) are known to influence scallop productivity by affecting the recruitment, growth, and mortality of scallops and therefore may in the future be useful in terms of identifying HPSFM. Scallop larval settlement requires the presence of fine filamentous emergent epifauna on the seabed, such as tubeworms, hydroids, and filamentous algae; hence the successful use of synthetic mesh spat bags held in the water column as a method for collecting scallop spat. Survival of juveniles has been shown to vary with habitat complexity, being greater in more complex habitats (with more emergent epifauna) than in more homogeneous areas (Talman et al. 2004). The availability of suspended microalgae and detritus affects growth and condition (Macdonald et al. 2006). Suspended sediments can reduce rates of respiration and growth, the latter by 'diluting' the food available. Scallops regulate ingestion by reducing clearance rates rather than increasing pseudofaeces production. Laboratory studies have demonstrated that suspended sediments disrupt feeding, decrease growth, and increase mortality in scallops (Stevens 1987, Cranford & Gordon 1992, Nicholls et al. 2003).

5. STOCK ASSESSMENT

The stock assessments of scallop stocks SCA 1, SCA CS, and SCA 7 are provided in the relevant scallop chapters.

A review of reference points (management targets and limits) for scallop fisheries was undertaken in 2025. The project findings were presented to the Shellfish Fisheries Assessment Working Group in October 2025 (Williams & Underwood 2025) and have been documented in a forthcoming report (Williams & Underwood, in review). The review synthesised key insights into the development and application of reference points by: 1) examining international practices in scallop fisheries, highlighting both modelling and empirical approaches and their suitability across different management contexts; 2) evaluating reference points previously applied in New Zealand scallop fisheries, identifying strengths, limitations, and implementation gaps; and 3) outlining essential design considerations for effective reference points, including spatial scale, ecological relevance, data availability, and alignment with management objectives.

The reviewed scallop fisheries across Australia, Europe and North America represent a diversity of species, stock sizes, and management approaches, yet face common challenges such as sustainability concerns, pronounced spatio-temporal variability, and data limitations. While some fisheries have well-established biological reference points, others are still in the process of developing them. Most rely on maximum sustainable yield (MSY) frameworks, typically incorporating spawning stock biomass limits (SSB) and fishing mortality (F) targets.

In New Zealand, yield-per-recruit (YPR) modelling has historically informed target fishing mortality rates for the Northland, Coromandel and Marlborough Sounds scallop fisheries. Although modelling offers a structured theoretical approach, its utility is constrained by the complex and often oversimplified nature of scallop population and fishery dynamics. Recognising these limitations, recent assessments in Marlborough Sounds have shifted to an empirical approach, establishing substock-wide reference points based on a harvest or exploitation rate (U) target and absolute biomass soft and hard limits. While New Zealand's approaches are broadly consistent with international practices, there remains significant scope for refinement, particularly in addressing the previous reliance on absolute biomass rather than effective spawning stock biomass for yield estimation. Future improvements will likely require the development of spatially explicit reference points and the integration of changing productivity and habitat conditions into the management strategy.

6. STATUS OF THE STOCKS

The status of scallop stocks SCA 1, SCA CS, and SCA 7 are given in the relevant scallop chapters.

7. FOR FURTHER INFORMATION

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