

THE SNAPPER FISHERY IN QLD AND NSW IN THE 19TH AND 20TH CENTURY

Snapper has been fished since the early development of the colony around Sydney Harbour in the late 18th century, but it was the arrival of steam power in the 1860's that enabled fishers to start regularly targeting the abundant schools of snapper occurring in the deep-water fishing grounds outside of the sheltered bays and estuaries along the east coast of Australia (Fig. 1). Exploitation of snapper thus commenced many decades prior to any formal government monitoring of the fishery.

There was a wealth of information available from early historic documents in Queensland and New South Wales archives that described early snapper fishing trips and catches from as early as the 1870's. We explored these data in an effort to expand the time series of catch and catch rate information that could be considered in the stock assessment process of the east coast snapper stock.

Popular publications such as newspapers and books, Royal Commission reports and annual government reports were searched for information on the historical snapper fishery and individual fishing trips. Information collated included data on the fishing technologies used during fishing trips, locations fished, names of vessels chartered and fishing clubs involved. Harvest data included catch numbers of snapper, number of hours fished and number of fishing anglers.

Data were extracted from records to produce a time series of catch rates (snapper per fisher per hr and snapper per fisher per trip). In total, 611 and 698 fishing trips targeting snapper were recorded from Queensland and New South Wales sources, respectively. Trip descriptions were largely sourced from newspaper reports spanning the years 1871-1959.

The historical popularity of snapper fishing is reflected in the numerous articles published in east coast newspapers throughout the late 19th and early 20th centuries. The earliest record we found on charter fishing was retrieved from a newspaper published in 1871:

“Schnapper fishing is becoming quite a fashionable amusement among Brisbaneites, and considering the little difficulty there seems to be in making a good haul of these fish, it is surprising that professional fishermen don't turn their attention to catching them. The supply seems inexhaustible.” The Brisbane Courier, 7 Sept 1871.

The content of the article suggests that chartered fishing trips, if not frequent during this period, were certainly well established. However, by the time chartered fishing trips for snapper started to be recorded in the popular media, there were already concerns being expressed about the localised depletion observed in the waters around Sydney;

“20 and 30 dozen 'count' fish were often taken by two fishermen on [the Broken Bay] grounds. Now, however, the [...] grounds about Broken Bay have fallen off in their productiveness to an alarming degree.” New South Wales Royal Commission, 1880.

“For half a century and more, often as many as twenty boats, carrying at least two persons (amateurs) would proceed to Shark Island (the favourite spot) and each boat bring away

from 20 to 40 dozen of red bream (young schnapper) from 3 to 6 inches long. The same may be said of the professionals, who have scraped our shores and left bushels of these little fellows to perish on the beaches.” The Sydney Morning Herald, 9 Apr 1881.

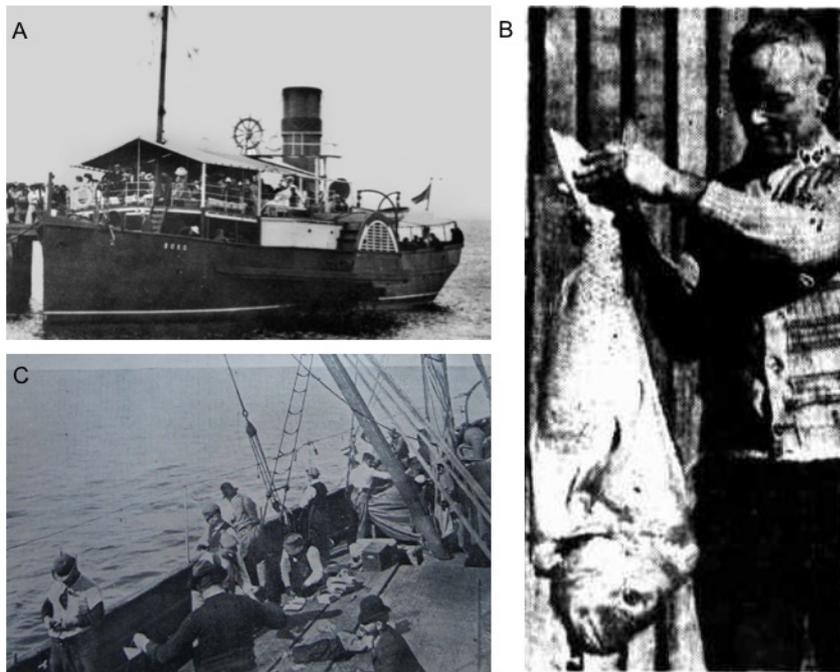


Figure 1. A) The s.s. Boko was frequently chartered for snapper fishing trips from Brisbane during the 1870s and 1880s (State Library of Queensland ca. 1890), B) Large snapper (24lb) landed at Peel Island in 1934 (The Telegraph, National Library of Australia) and C) Snapper fishing on-board the s.s. Tarshaw (Welsby 1905).

“A party of thirty went on a fishing excursion six miles outside Port Jackson Heads the other day. They commenced fishing about half-past eleven, and knocked off about a quarter past three in the afternoon. The number of fish taken was no less than 1,260 schnappers, exclusive of a few commoners that were cut up for bait.” The Morning Bulletin, 6 Aug 1878.

About twenty-two were on board [...], we reached Flat Rock at half-past 9am, and finding sport poor shifting to Boat Rock, and for two hours were all hard at it. Schnapper, groper, rock cod, and parrot fish came tumbling in till even the most inveterate sportsman was satisfied. At a quarter to 12 we started for home, and, counting over the fish, found 496, which, with those cut up for bait (about fifty) was a very good two hours' work indeed. The Brisbane Courier, 22 May 1879.

Using the data sourced from the newspaper articles, catch rates of snapper per fisher per trip were recorded for a total of 504 trips. Overall, a significant decline was observed for snapper per fisher per trip (Fig. 2), although differences exist between Queensland and NSW in terms of catch rates and the proportion of snapper recorded in the catch.

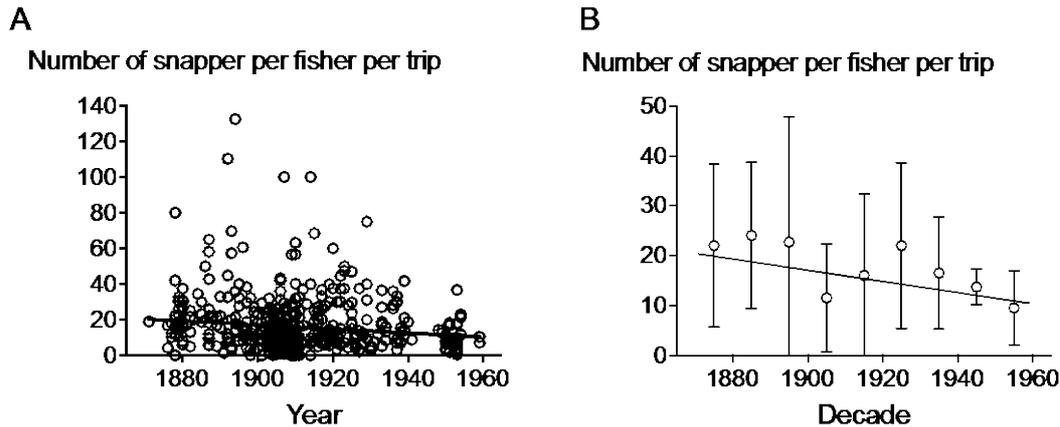


Figure 2. Aggregated New South Wales and Queensland data for A) snapper per fisher per trip, and B) mean snapper per fisher per trip averaged by decade. Linear trend lines show significant trends over time, while vertical lines show \pm one standard deviation from the mean ($n = 504$).

Catches of hundreds of fish, the majority of which were snapper, were reported to occur frequently during the fishing season, and large catches appeared – in many cases – to be expected by the fishers on board. While large catches were common, due to variation in numbers of fishers on board and individual skill, catch rates per fisher were highly variable, although vessels were rarely reported as returning with no fish during this early period.

While large catches and high catch rates occurred throughout the time series, the archival data provide some evidence of declining catch rates over the period of data collection, and particularly after World War 1 (although concerns about near-shore declines were seen in reports from the late 19th century). These declines occurred despite vessels finding new grounds and reported improvements in boat and line technology, which we were unable to account for quantitatively during this early period. As a result, declines in catch rate may be underestimated in this historical time series.

The information above and input into fishery stock assessments provides information on past conditions and lessens the phenomenon called the 'shifting baseline syndrome', where we fail to appreciate the fish population changes and fishing impacts that occurred prior to our lifetimes. With each person's subsequent generation, a shift occurs in what we perceive to be the 'natural' state of fishing, meaning we become more likely to overlook the true magnitude of change that we have exerted on fisheries. One way we can improve our understanding of past changes is to examine historical sources for clues as to what our marine ecosystems and our fisheries looked like prior to the commencement of formal data collection.