Inspector E.I. Forster and Cadet Inspector R.G. Emery are stationed at Lancelin at least for the first part of the 1960/61 crayfish season, Assistant Inspector D.H. Smith is similarly stationed at Jurien Bay.

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Technical Officer L.G. Smith returned to duty on November 10 after an operation followed by six weeks' sick leave. He will commence annual leave on December 28.

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We regret to report that Cadet Inspector P.K. Enright is very seriously ill in Royal Perth Hospital. Kevin had recently been transferred to r.v. "Lancelin", and had served only one week in her before his seizure, which appears to be the result of some form of brain infection.

ANNUAL INSPECTORS' CONFERENCE

A brief summary of the seventeenth annual conference of field, research and administrative staffs of the Department was published in the October-November issue of this Bulletin. Hereunder is a more detailed outline of the reports presented to and discussions which took place at the conference.

FAUNA PROTECTION SECTION.

Fauna Warden S.W. Bowler.

Mr. Bowler gave full details of patrols carried out during the year, which included visits to the Shoalwater Bay Sanctuary with members of the Australian Bird Banding Scheme to carry out bird-banding operations, attendance at the opening of the wild duck season in different areas and investigating complaints by farmers regarding damage to crops by grey kangaroos.

Mr. Bowler said the cagebird trade had waned considerably during the year, and he anticipated that future imports of birds from the eastern States would diminish. During 1959 birds exported from this State totalled 15,780 and from January 1 to June 30, 1960, exports totalled 2,139. Birds imported into the State during 1959 totalled 80,611, and 8,411 during the first half of 1960. Reviewing the effect of the taking up of areas of virgin land for agricultural purposes, Mr. Bowler told the conference that the numbers of native fauna would naturally fall away. This state of affairs had already become evident in the metropolitan area and in some agricultural country in the South-West. However, he believed that if the far-sighted policy of the Fauna Protection Advisory Committee in having reserves created were continued, the impact of civilisation on native fauna would not be as great as would otherwise be the case.

Fauna Protection Officer H.B. Shugg.

Mr. Shugg opened his address with a brief history of the gradual transition of the swamp-lands surrounding Perth, the sanctuary of prolific bird and animal life, to a modern city and the consequent dying out of fauna. He told the conference that the removal of reed growth from swamps was causing many kinds of fauna to disappear because their natural source of food was being taken away. Numerous Australian mammals and marsupials were facing extinction and it was imperative that steps should be taken for their preservation.

Mr. Shugg explained what measures were taken to ensure the conservation of fauna in Western Australia. He stated that much time was taken up in Head Office in protecting reserves against the depredations of farmers, but although Western Australia was generously endowed with space (approximately 975,000 sq. miles) only 0.4 of this area was reserved. Such reserves were imperative to protect the natural habitat of native birds and animals.

Inspectors were urged not to be afraid of being associated with the cause of fauna conservation, as the fauna of Western Australia was unique in Australia and well worth fighting for. Once it had become extinct there was no bringing it back. Secondly, Mr. Shugg urged that inspectors get to know the fauna, to use the reference books which the Department allotted them and not to be afraid of talking about fauna with people in their districts. He said that knowing, or getting to know, honorary wardens in the various districts had its personal advantages.

Fauna Warden N.E. McLaughlan was unable to present his annual report as, at the time of the conference, he was on patrol with members of the Lands and Surveys Department at Esperance.

PEARLING

Inspector R.J. Baird, Broome.

Mr. Baird told the conference that the Broome pearling industry had continued to decline throughout the 1959 season, and there was a consequent reduction in the fleet owing to the lack of suitable markets for low grade shell. Only 27 luggers were now licensed, 11 less than the previous season.

Shell fished during the season was valued at £279,304 and pearls and baroque at £5,740. Employees in the industry, mainly Japanese, Chinese, Malays and Aborigines, totalled 290.

Two divers suffered from diver's paralysis, or the "bends". One of them died as a result. The other fully recovered and resumed diving.

Mr. Baird outlined the work being done at the Kuri Bay pearl culture station where approximately 90,000 pairs of shell had been planted. Technicians were continuing experiments to improve the quality of pearls.

Professional fishermen in Broome again had an extremely bad year, only one person fishing full time with very poor results.

INSPECTION SECTION

Inspector A.T. Pearce, p.v. "Kooruldhoo".

Mr. Pearce briefly outlined patrols carried out in the Abrolhos area. From observations he had made there appeared to be a vast difference in the bird life on the Islands in May and June compared with September and October. Vast numbers of mutton birds, noddy terns, and silver gulls were present, especially at Pelsart Island, Southern Group. Large numbers of whales were sighted, heading south, on a patrol completed on September 17, 1960.

Mr. Pearce informed the conference that fishermen were very happy that a patrol vessel was now stationed permanently at Geraldton.

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Inspector H.D. Kavanagh, Shark Bay.

During the period under review, the p.v. "Garbo" had been refitted and Inspector Kavanagh carried out sea patrols covering approximately 1,500 miles. Local boats operating from Denham numbered 42; of these 13 were ice boats and 29 dinghies and motor tenders. Professional fishermen's licenses totalling 41 were issued, but only 25 fishermen were permanently engaged in fishing.

Production figures showed that whiting (386,492 lb.), mullet (263,143 lb.), and snapper (100,095 lb.) were the main species of fish taken. The total poundage of fish taken was 885,455 lb. The snapper season was rather poor and fishermen were hand-lining with more success than when using traps. Mr. Kavanagh said it was his personal opinion that the fish became trap-shy rather than that the area was being fished out.

Inspector R.M. Crawford, Geraldton.

A most successful year had been experienced in Geraldton District. Production figures reached record level, due mainly to additional men and boats. However, the catch-per-man continued to decline. Licenses had been issued for 269 boats (including 45 new vessels) and 438 men. Unfortunately, 15 vessels had been lost between January and June and one fisherman had lost his life at sea.

The 1959/60 crayfish production from the four main fishing areas was Abrolhos Islands, 3,504,458 lb., Geraldton inshore, 1,919,694 lb., Port Denison, 884,676 lb. and the Murchison River, 166,602 lb. - a grand total of 6,475,430 lb.

Mr. Crawford said the fishery at Port Denison had improved greatly and the construction of the new jetty was proving a great asset to fishermen and anglers. Fishing at the Murchison River was limited owing to flood waters shifting the bar. The only opening to the sea from the river was now at the southern end, which was very treacherous and made conditions extremely difficult for fishermen.

The kangaroo processing factory established at Geraldton had been forced to close down because of adverse reports on a shipment of meat to Western Germany.

Inspector A.V. Green, Mandurah.

Estuarine fishermen had again had a very lean year, and many fishermen had been compelled to take temporary employment when available.

The main species of fish taken were cobbler (209,396 lb.), yellow-eye mullet (153,045 lb.), mullet (142,527 lb.) and prawns (34,159 lb.). Other varieties taken were Perth herring, tailer, King George whiting, garfish, sand whiting, jewfish, shark, snapper and samson fish.

Mr. Green told the conference that the catch of prawns was disappointing. Fishermen had been hampered by a pink slime, and were unable to haul their nets until the fish had moved into the small remaining areas of clear water. Crabs were plentiful in the estuaries.

Inspector T.B. Baines, Bunbury.

Inspector Baines reported that 81 professional fishermen and 73 fishing boats were licensed in the Bunbury district for the year ended December 31, 1959. This represented a slight decrease on the previous year.

Fish had been scarce in the estuary and net-fishermen were restricted in relation to the use of set-nets because of the large numbers of crabs in the estuary. Yellow-eye mullet had been plentiful, but low market prices restricted catches. Prawns were also plentiful. Good hauls of tailer and skipjack were made along the beaches and shark fishermen had a very good year as the market price was highly satisfactory. Salmon fishermen started off well in the middle of November, and had caught nearly 100 tons before the end of December.

Mr. Baines reported that all fish were very scarce in the Collie River, only a few schools of mullet being observed in the vicinity of Hough's Bank. Anglers had made some good catches of black bream and mulloway in the rivers.

Senior Inspector A.K. Melsom.

Mr. Melsom reported that during the year under review licenses to the value of £3,347.11.6 had been issued. This revenue was received from 853 fishermen's, 346 fishing-boat and 199 amateur net-fishermen's licenses. In addition, £571 was received from Commonwealth licenses, comprising 324 boat and 596 fishermen's licenses.

The "white" crayfish season commenced November 20, 1959. During the year 8,288,280 lb. of crayfish from Jurien Bay, Lancelin, Ledge Point, Fremantle and Safety Bay had been processed in the five plants in the Fremantle and Coogee areas. Fish taken by net and line in his district had totalled 333,590.lb.

Senior Inspector J.E. Munro, Perth.

Mr. Munro reported that crayfishermen produced the greater part of the total catch of fish taken from waters within the Perth District. The introduction of more boats and men into the industry, plus a longer fishing year, had contributed to the increase in the amount of fish taken.

Additional freezer- and freezer-catcher-boats had operated this season and were mainly responsible for the large increase in crayfish production. Because of the increase in the fishing fleet, its mobility and extensive area of operation, it was impossible with existing staff to police the trade in undersize crayfish which was rampant.

Mr. Munro stated that consideration should be given to the frequent inspection of freezer-boats. If these vessels were compelled to operate in groups at designated points, it would assist the inspectors greatly in policing this section of the industry.

A feature of the 1959/60 period was the export of whole cooked crayfish to the U.S.A. This pack had been very well received by buyers, and it was anticipated there would be a big increase in the demand in the new season.

Inspector E.I. Forster.

During the period under review, Mr. Forster reported having patrolled the Abrolhos Islands area as sailing master, assisting Inspector Seabrook, master of the r.v. "Lancelin". He had then taken charge of the "Kooruldhoo" and patrolled the coast from Fremantle to Green Head until the crayfish season started. He was then stationed at Lancelin and Ledge Point. Prawn trawling experiments were carried out in January, 1960, on the Swan River from p.v. "Misty Isle". After a period in Denmark, relieving Inspector Carmichael of Albany, he returned to Perth and joined the mobile coastal land patrol.

C.J. Seabrook, Master, r.v. "Lancelin".

Mr. Seabrook reported that he was in command of the r.v. "Lancelin" during a visit to the Abrolhos Islands by a scientific party headed by Professor H. Waring and Dr. A.R. Main. On November 9, he took command of the p.v. "Dampier". Patrols were carried out to Cervantes Islands, Kangaroo Point, Sandy Point, Fisherman's Islands and Green Head. Seven boats operated at Cervantes, one from Kangaroo Point and four from Green Head. The "white" crayfish run was late, starting on December 20, 1959, as against December 2 in 1958. Catches were good and compared favourably with the season before.

In February, 1960, patrols were carried out of the Abrolhos Islands to Turtle Dove Shoal and Clio Reef to the south and as far north as Shallow Bank and the 28th parallel. Considerable trouble was experienced with freezer-boats operating in the prohibited area of the Abrolhos.

Inspector G.D. Houston, p.v. "Dampier".

Mr. Houston reported that for the greater portion of the crayfish season he had patrolled the Ledge Point-Lancelin area. There were 65 licensed fishing boats working from Lancelin during the season. All of these recorded good catches, as did the 18 boats at Ledge Point. Patrols were also carried out on the "Kooruldhoo" in the closed waters around Rottnest Island, the Geraldton area and the Abrolhos Islands.

Supervising Inspector J.E. Bramley.

Mr. Bramley stated that he was very disappointed with the kind of report submitted by some inspectors during the year. Many of them were not paying enough attention to the salient points, and frequently vital evidence and background were omitted. All this necessitated reference back, which brought about much addition work. He said more care must be exercised in future.

Mr. Bramley stated that entries in diaries were exceptionally good, but he reminded inspectors that diaries were daily records and must be written up daily and submitted to Head Office each week. Some inspectors were submitting diaries at very irregular intervals.

Mr. Bramley requested inspectors to study carefully the

the provisions of the Fisheries Acts, both Commonwealth and State, so that they would be fully conversant with the law when dealing with fishermen and the public and also when submitting recommendations for prosecutions. If in doubt, queries should be referred to Head Office.

District officers who were absent from their office for more than 24 hours must give prior notice to Head Office.

RESEARCH SECTION.

Research Officer B.K. Bowen,

Mr. Bowen dealt mainly with the outcome of three conferences which he attended prior to the annual Fisheries Inspectors' Conference, and also with research work carried out over the preceding 12 months.

(a) <u>Waterfowl Conference</u>. Mr. Bowen told the conference that a committee known as the Australian Waterfowl Advisory Committee had been set up on the recommendation of the Fauna Authorities Conference held in Sydney in 1958. Its object was to discuss problems of waterfowl and submit recommendations based on those discussions to the Fauna Authorities Biennial Conference. He had been appointed the W.A. representative.

The first meeting of this committee had been held in Melbourno in February, 1960, and through general discussion it was made evident that the time was rapidly approaching when problems concerning waterfowl should be considered on an Australia-wide basis.

The need for Australia-wide control was illustrated by the example of the Murray-Darling basin where the major tealbreeding area in Australia was situated. The damming of . rivers for irrigation purposes and the prevention of flooding was virtually wiping out the low-lying swamplands which were the breeding places for ducks, particularly teal. Without such large areas of flooded land the breeding sites were diminishing quite markedly and as a result the wild duck population was falling away.

Another point which arose at the meeting was that of the pooling of information coming from waterfowl banding programmes in the various States. This was necessary to

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provide statistics on an Australia-wide basis. It was intended to introduce a card system for these statistics. It would be established in a central repository so that there would be an Australia-wide statistical record.

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