

APPENDIX 1 UNDERUTILISED SPECIES DATABASE

Please note that the database has been developed based on data collected only up until 2015.

| Fishery | Underutilised species | Harvest challenges/opportunities | Processing Challenges/opportunities | Market challenges /opportunities |
|---|-----------------------|---|--|--|
| South coast estuarine (WA) West Coast beach seine (WA) Ocean hauling (NSW) Small Pelagic (Commowealth) | Sardines | Inconsistent supply, large volumes can be caught (currently undercaught) but would require rapid cooling and boats are small and insufficient land based infrastructure. Larger boats with on board processing facilities to fish quota??? | short shelf-life, insufficient freezing/cooling space near regional landing places. | Market perception as “cat food” Low price, high volume product Cape Le Grande launched (frozen chain) (2010/775) Consumer perceptions can be changed/sexy products can be produced (EB report). Freo Octopus marinated local sardine product now marketed. Featured in Seafood festival Esperance (information sheet produced) |
| South Coast Salmon (WA) Southwest Coast salmon (WA) Ocean Hauling (NSW) Marine Scalefish (SA) Scalefish (Tas) | Australian salmon | Short season, Low value, poor quality due to beach seine handling Undercaught | short shelf-life studies have demonstrated fillets and H and G can be frozen with good quality results. | Market perception as “neighbours fish” No retail presence |
| South Coast beach Seine Fisheries (WA) | White bait | | Labour cost to process(very small) | No Market presence |
| South Coast beach Seine Fisheries (WA) | Blue sardines | | Labour cost to process(very small) | No Market presence |
| South Coast beach Seine Fisheries (WA) | Blue spat | | Labour cost to process(very small) | No Market presence |

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| South coast wetline/trap/crustacean fishery (WA) Northern Pilbara prawn trawl (WA) Great Australian Bight (Commonwealth) Scalefish (TAS) Ocean Trap & Line (NSW) | Leatherjacket/ocean jacket | Catch information, levels not known: Some Fisheries under review in 2014 Too small to handle Lack of data, difficult to get samples. (GAB) | Very sweet flesh Few scales, high yields on filleting Develop species specific filleting skills, variation in size of product | Markets already identified, processors already engaged. Featured in Seafood festival Esperance (information sheet produced) Consistency of product supply???, unknown in markets |
| South Coast wetline/trap/crustacean | Champagne crab | Inconsistent/seasonal catch rates | Spines may cause off flavour | Featured in Seafood festival Esperance (information sheet produced) Plan developed for consultation |
| West Coast Purse seine | tropical sardinops | | Too small to fillet economically | Low/no market perception |
| West Coast Purse seine | Sardinella | (2000 tonne quota) | | |
| West Coast Purse seine | Scaly mackerel | | | |
| Pilbara Finfish Trawl (detailed in Appendix) | Small trawl reef fish | Caught in large quantities but not retained | Too small to economically fillet, difficult to sell as whole fish | Low/no market perception |
| Pilbara fish trawl Northern Pilbara prawn trawl Ocean Trawl (NSW) | Whiting sand, stout, school-not King George). Stout and red spot whiting | Commercial volumes but need to be moved away from boats (taking up space for more valuable fish) and processed rapidly. | | |
| Northern Pilbara prawn trawl | goatfish (palatability??), | Prawn mesh is smaller therefore finfish/invertebrate bycatch is only small sizes, (check for species targeted by other fisheries (and also look for non-rec fishing targets) In terms of abundance: | Sorting/removing of extra species will slow production down, need to have things easier to grab and sort, many baskets for separation, storing chilled/space.(look at | |

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| | | | seasonality of prawn catches ie target in less busy times, eg early and late in season). | |
| Northern Pilbara prawn trawl | grinners (lizard fish) | | | |
| Northern Pilbara prawn trawl Western Deep Sea Fishery (line/trap is WADoF, trawl is Commonwealth (Steve Bolton) GAB Scalefish (Tas) Ocean Trawl (NSW) East Coast Inshore Fin Fish (QLD) | Flathead (bar tailed more common but mixture) Southern sand flathead Tiger Flathead Tiger Flathead | 1650 quota (2012) (GAB) | | Markets already established |
| Northern Pilbara prawn trawl | flounder (bottom dwellers) | Individual boats/skippers have different approaches to retaining these products , crew may not want to bother Commercial volumes but need to be moved away from boats (taking up space for more valuable fish/prawns) and processed rapidly. | Need for a “mother ship” to remove catch to stop volume worriers If target species suddenly in large volumes then consistency of supply may be a problem | |
| Northern Pilbara prawn trawl WRL fishery | Octopus | Ditto Poor handling leading to poor quality product | ditto | Poor quality therefore not human consumption market but opportunities exist |

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| Northern Pilbara prawn trawl | cuttlefishprawn killers (stomatopods) | ditto | ditto | |
| WRL fishery GAB SESSF | Silver Warehou | Undercaught by 1500 tonnes based on quota | Flesh turns grey and looks unattractive, also soft Partially thawing cutlets, vacuum seal and re freeze-white appearance and firm texture will be maintained | Previous research projects to add value have proved unsuccessful |
| Western Deep Sea Fishery (line/trap is WADoF, trawl is Commonwealth GAB | Boarfish | Deep sea fishery, harsh conditions need big boats little information on best practice harvest Little information on species/volumes/seasonality (but expectation is low productivity) Regulators may lack Confidence in developing sustainable fishery??(cf orange roughy experience) | Bones near head, difficult to fillet Not economic to harvest at current prices Bone structure, low filleting yields, waste management | |
| Western Deep Sea Fishery | Mirror Dory | Little data | | |
| Western Deep Sea Fishery GAB | Red Bightfish | 1556t quota (GAB) | | Markets already established. |
| Western Deep Sea Fishery | Ocean Perch | | | |
| Western Deep Sea Fishery GAB | Gem fish | 400 t trigger for assessment/management indicating potential for development Classified as overfished on east coast | | |

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|--|--|--|-------------------------------------|---|
| Western Deep Sea Fishery | Red Gurner | | | |
| Western Deep Sea Fishery | Deepwater bugs | | | |
| GAB Scalefish (TAS) | Jackass morwong @ | | | Consistency of product supply?, unknown in market |
| GAB | Blue morwong | | | |
| Ocean Trap & Line (NSW) | Grey morwong | | | |
| GAB | Knifejaw | | | Consistency of product supply??? |
| GAB Southern and Eastern Scalefish (AFMA) | Blue grenadier#@ | 400 t trigger for assessment/management indicating potential for development Undercaught by >2000 tonnes based on quota | | Consistency of product supply??? |
| Demersal (NT) Spanish Mackerel (NT) Ocean Trawl (NSW) Ocean Trap & Line (NSW) Coral Reef Fin Fish (QLD) East Coast Inshore Fin Fish (QLD) E Coast Spanish Mackerel (QLD) Fin Fish Trawl (QLD) | Trevally Silver Trevally Silver Trevally | Trap, line, trawl. Bycatch made up 20% trawl in 2012. | Soft flesh | |
| GAB Ocean Trap & Line (NSW) | Blue eye trevalla*#@ | 100 t trigger for assessment/management | | |

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|---|---|---|-------------------------------------|----------------------------------|
| Deepwater Fin Fish (QLD) | | | | |
| GAB | Ribaldo | 100 t trigger for assessment/management | | |
| GAB Deepwater Fin Fish (QLD) | Hapuku#@ | 100 t trigger for assessment/management | | |
| GAB | Latchet fish | | | |
| Barramundi (NT) Gulf of Carpentaria Inshore Fin Fish (QLD) | Blue threadfin | | | |
| Barramundi (NT) | Queenfish | | | |
| Barramundi (NT) Gulf of Carpentaria Inshore Fin Fish (QLD) East Coast Inshore Fin Fish (QLD) | King threadfin (394 t 2012) Threadfins | | | |
| Demersal (NT) | Scads | | | |
| Spanish Mackerel (NT) | Wahoo | 100kg bycatch, >83% released in 2012 | | |
| Spanish Mackerel (NT) | Queenfish | | | |
| Timor Reef (NT) | Tropical snapper | | | |
| Timor Reef (NT) | Triggerfish | | | |
| Timor Reef (NT) | Catfish | | | |
| Timor Reef (NT) | Chinaman fish | | | |
| Scalefish (TAS) | Bastard trumpeter 9.4t in 12/13 | Trolling, graball net, beach seine, purse seine, gillnet, Danish seine, spear, hand line, drop line, dip net, fish trap | | |
| Scalefish (TAS) | Blue warehou 8.5t in 12/13 | | | |

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| Scalefish (TAS) | Yelloweye mullet 9.2t in 12/13 | | | |
| Scalefish (TAS) | Pike 8.2t in 12/13 | | | |
| Scalefish (TAS) East Coast Inshore Fin Fish (QLD) | Southern garfish 51.5t in 12/13 | Classified as transitional-depleting in some SA cases. | | |
| Scalefish (TAS) | Striped trumpeter 13t in 12/13 | | | |
| Scalefish (TAS) | Blue-throated wrasse 49.5t in 12/13 | | | |
| Scalefish (TAS) | Purple wrasse 12.8t in 12/13 | | | |
| Ocean Hauling (NSW) East Coast Inshore Fin Fish (QLD) | Sea mullet | | | |
| Ocean Hauling (NSW) | Blue mackerel | | | |
| Ocean Hauling (NSW) | Yellowtail scad | | | |
| Ocean Hauling (NSW) Ocean Trap & Line (NSW) | Yellowtail bream | | | |
| Ocean Trawl (NSW) | School prawns | | | |
| Ocean Trawl (NSW) | Royal red prawns | | | |
| | | | | |
| Ocean Trap & Line (NSW) | Bonito | | | |
| | | | | |
| Coral Reef Fin Fish (QLD) | Nannygai | Hand line. Many bycatch species but comprise less than 10% of the catch. | | |
| Coral Reef Fin Fish (QLD) Finfish Trawl (Qld) | Cods | | | |

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| | | | | |
| Deepwater Fin Fish (QLD) | Flame snapper | | | |
| Deepwater Fin Fish (QLD) Rocky Reef Fin Fish (QLD) | Mahi mahi | | | |
| Deepwater Fin Fish (QLD) | Rusty jobfish | | | |
| Deepwater Fin Fish (QLD) Rocky Reef Fin Fish (QLD) | Amberjack | | | |
| Deepwater Fin Fish (QLD) | Lavender snapper | | | |
| Deepwater Fin Fish (QLD) | Pearl perch | | | |
| Deepwater Fin Fish (QLD) | Bar cod | | | |
| East Coast Inshore Fin Fish (QLD) Gulf of Carpentaria Inshore Fin Fish (QLD) | Grey mackerel | | | |
| East Coast Inshore Fin Fish (QLD) East Coast Spanish Mackerel (QLD) | School mackerel | | | |
| East Coast Inshore Fin Fish (QLD) | Tailor | | | |
| East Coast Inshore Fin Fish (QLD) | Grunter | | | |

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| East Coast Inshore Fin Fish (QLD) | Dart | | | |
| East Coast Inshore Fin Fish (QLD) | Bream | | | |
| Fin Fish Trawl (QLD) | Mangrove jack | Demersal otter trawl and Danish seine net. Approximately 19% of the total landed catch in 2009 was byproduct. | | |
| Gulf of Carpentaria Inshore Fin Fish (QLD) | Rays | Set mesh gillnets, bait mesh gillnets, cast nets. | | |
| Rocky Reef Fin Fish (QLD) | Amberjack | Hook and line. | | |
| Rocky Reef Fin Fish (QLD) | Mahi mahi | | | |
| Rocky Reef Fin Fish (QLD) | Samsonfish | | | |
| Rocky Reef Fin Fish (QLD) | Sea sweep | | | |
| Rocky Reef Fin Fish (QLD) | Grass sweetlip | | | |
| Rocky Reef Fin Fish (QLD) | Frypan bream | | | |
| Rocky Reef Fin Fish (QLD) | Pearl perch | | | |
| Rocky Reef Fin Fish (QLD) | Teraglin | | | |
| South Coast wetline/trap/crustacean | Hammerhead shark | | Grey flesh | Featured in Seafood festival Esperance (information sheet produced). |
| Northern Shark Fishery | Shark (not protected species) | Larger species Opportunity for shark liver (oil etc, 30% of fish) | Boat carrying capacity (to manage logistics) in isolated areas | Aust not asian shark fin market |

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| Western Deep Sea Fishery | Ghost shark | Little data | | |
| GAB | Angel shark @ | | | |
| GAB | Gummy shark | 1717 quota | | |
| Barramundi (NT) | Blacktip shark | | | |
| Demersal (NT) | Small shark species | | | |
| Offshore Net and Line (NT) | Other shark species? 294t in 2012 | Longline, pelagic gillnets | | |
| Ocean Trap & Line (NSW) | Sharks | | | |
| East Coast Inshore Fin Fish (QLD) | Shark | | | |
| Gulf of Carpentaria Inshore Fin Fish (QLD) | Sharks | | | |
| Gulf of Carpentaria Inshore Fin Fish (QLD) | Tropical shark | | | |