Juvenile cod habitat preferences





Michael Hutchison DAF

The limited number of juvenile (fingerling) Mary River cod we have captured in electrofishing surveys in the Mary and Coomera systems have been around undercut banks with overhanging roots or in rocky pool and run habitats



We do not have much experimental data for Mary River cod fingerlings but DAF have done lab experiments looking at habitat preferences of Murray cod fingerlings. Mary River cod probably have similar preferences.

We gave cod fingerlings preference choices between habitat pairs, including open sand, submerged macrophytes, rocky habitat and *Phragmites* (common reed). Each habitat pair was tested in eight tanks. Twelve cod were used in each tank. After two hours numbers of cod were counted in each type of habitat. Average proportions using each habitat were calculated.



Examples of preference troughs

As you would expect cod fingerlings preferred cover to open sandy habitat.







But juvenile cod preferred rock to other cover choices





It is highly likely that complex rocky structures are favoured by juvenile cod (both Murray cod and Mary River cod)

To protect fingerlings from predation it may be advantageous to release juvenile cod near complex rocky structures. This could be rocky dam walls, or purpose built rock piles or reefs. In rivers, naturally complex rocky areas, or complex undercut banks would be good release areas. Complex cover will keep cod safe from cormorants and from each other.

Having cod breeding structures near complex rocky habitats or complex banks may also help with wild recruitment.



Any questions? Then contact Michael Hutchison, DAF