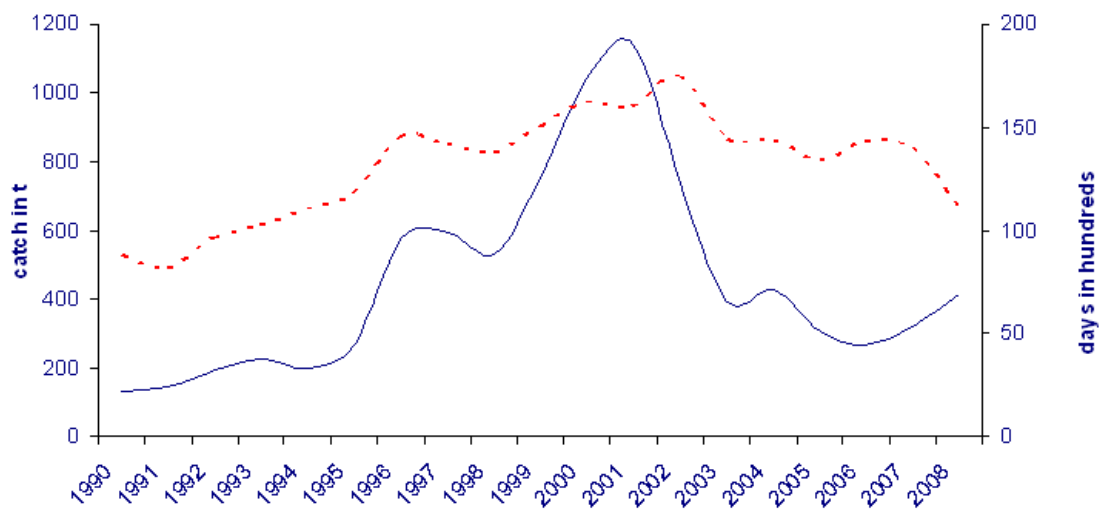


Supplementary Material

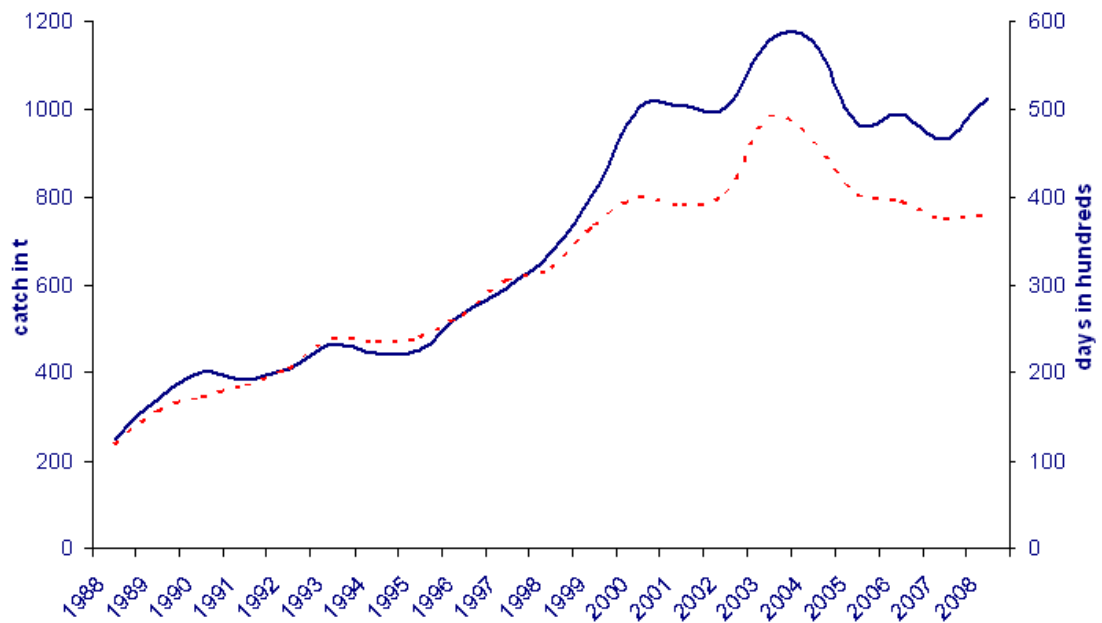
Table S1. Suggested effects of temperature and salinity on the life cycle of the giant mud crab derived from literature

Temperature	Salinity/flow	Region	Reference
-	Juveniles more abundant post-wet season	Australia and Asia	Hill 1974
Low survival at 20°C, best survival at 30°C-32°C water temp.	Low survival in 12-20ppt salinity, faster growth in salinities of 20-22ppt	Australia and Asia	Heasman <i>et al.</i> 1985; Robertson 1996; Ruscoe <i>et al.</i> 2004
-	Preferred salinity 34ppt	Australia and Asia	Le Vay <i>et al.</i> 2001
-	Juvenile abundance may be related to seasonal variation in rainfall and salinity	NT	Poovichiranon 1992; Knuckey 1999
-	Freshwater run-off important for juveniles to identify estuary systems	NT	Chandrasekaran and Natarajan 1994; Robertson 1996
Peak mating activity in spring and early autumn, spawning only in summer >22°C water temp	Maturation in females appears to be associated with seasonal high rainfall	QLD	Heasman <i>et al.</i> 1985
Low activity in the winter month	-	NSW	NSW DPI 2008
-	stimulus for recruitment settlement, water depth, tidal pressure or chemical cues	NSW	Webley and Connolly 2007

(a)



(b)



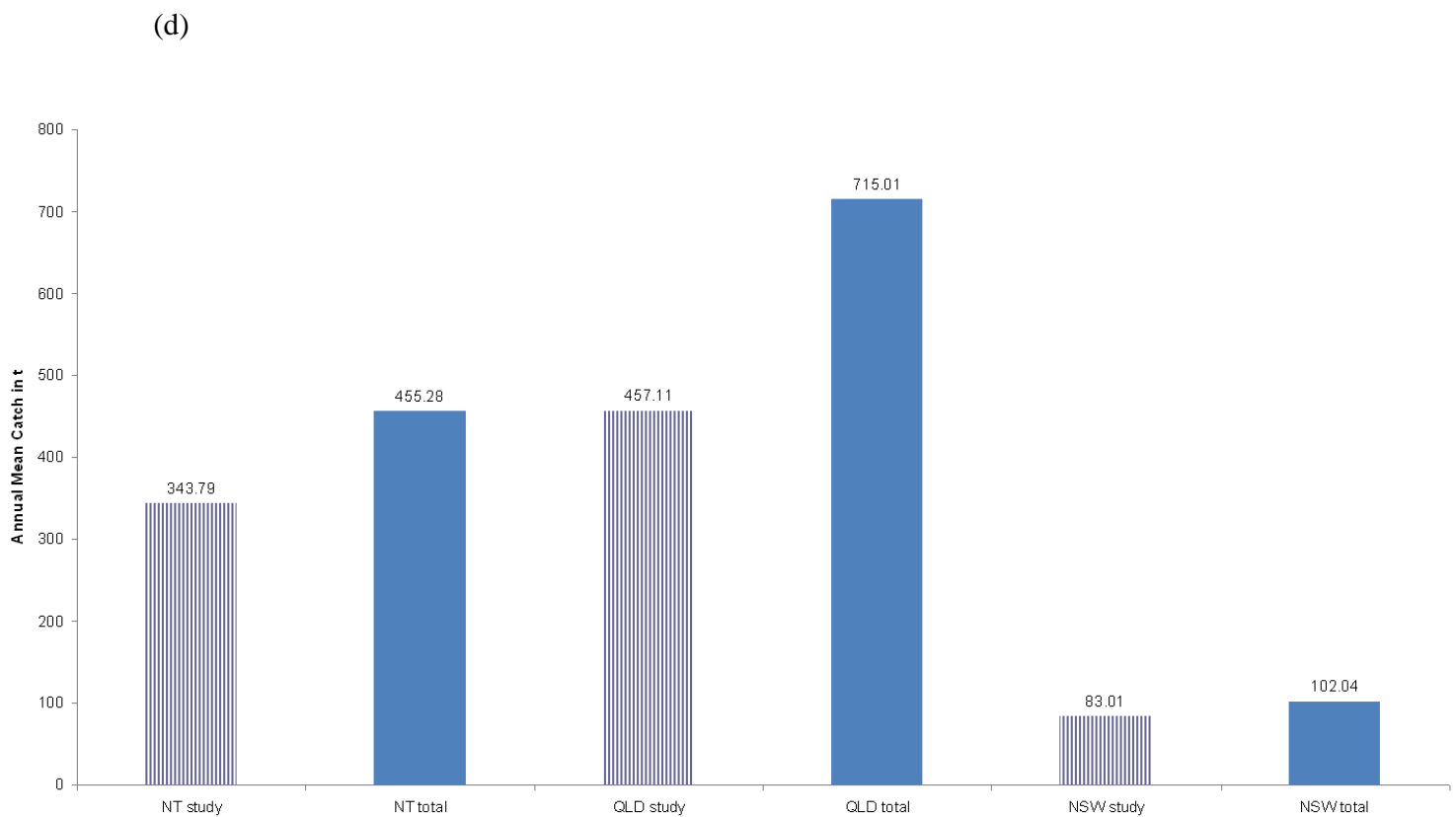
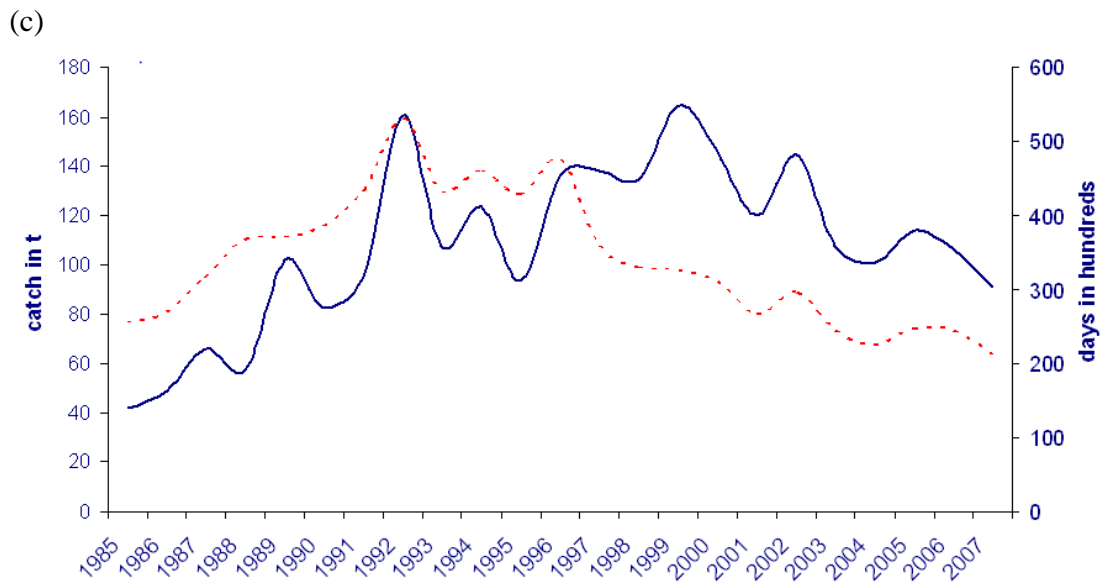


Fig. S1. Total mud crab catches in tonnes (continuous line) and fishing days (dotted line) for mud crab fisheries in NT (a, 1990-2008), QLD (b, 1988-2008) and NSW (c, 1984/85-2007/08) as well as the annual mean giant mud crab catches for three jurisdictions and selected rivers (d). NSW data recorded in fiscal years.