

Male seahorses like big mates

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Male seahorses have a clear agenda when it comes to selecting a mating partner: to increase their reproductive success. By being choosy and preferring large females, they are likely to have more and bigger eggs, as well as bigger offspring, according to Beat Mattle and Tony Wilson from the Zoological Museum at the University of Zurich in Switzerland. Their findings have just been published online in Springer's journal *Behavioral Ecology and Sociobiology*.

Seahorses have a unique mode of reproduction: male pregnancy. Male seahorses provide all post-fertilization parental care, yet despite the high levels of paternal investment, they have long been thought to have conventional sex roles, with females choosing mating partners and males competing for their attention. However, clutch, egg and offspring size all increase with female body size in seahorses, suggesting that males may obtain fecundity benefits by mating with large-bodied females.

Mattle and Wilson investigated the mating behavior of the pot-bellied seahorse (*Hippocampus abdominalis*), concentrating on the importance of partner body size in mate selection. A total of 10 female and 16 male sexually mature seahorses, obtained from a [captive breeding](#) facility in Tasmania, took part in the experiment. Individuals of both sexes were presented with potential mating partners of different sizes. Mating preferences were quantified in terms of time spent courting each potential partner.

Mattle and Wilson found striking differences in courtship behavior between male and female seahorses, with choosy males and

indiscriminate females. Male seahorses were highly active and showed a clear preference for larger partners. In contrast, females were significantly less active and showed ambiguous [mating](#) preferences.

The authors conclude: "The strong male preferences for large females demonstrated here suggest that [sexual selection](#) may act strongly on female body size in wild populations of *H. abdominalis*, consistent with predictions on the importance of female body size for reproductive output in this species."

More information: Mattle B & Wilson AB (2009). [Body size](#) preferences in the pot-bellied seahorse *Hippocampus abdominalis*: choosy males and indiscriminate females. *Behavioral Ecology and Sociobiology*. DOI 10.1007/s00265-009-0804-8

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