

***Nerophis lumbriciformis* (PISCES; SYNGNATHIDAE) POLYGYNADRIC
MATING SYSTEM**

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Using an individual identification technique, a population of *Nerophis lumbriciformis* was followed during 19 months, in order to determine the exact use of the intertidal and, considering the specific movement patterns of males and females, the mating system exhibited by this population was also investigated. Field observations showed that the number of adults increased during the breeding season, with males arriving one month earlier than females. Furthermore, males and females presented distinct permanence periods, showing that the intertidal is used as a mating arena. It was also observed that both male and female worm pipefish mated repeatedly over the span of a reproductive season, but females exhibited shorter remating intervals. Also, females stayed for longer periods on the mating grounds, the intertidal zone, whereas males typically left for the subtidal after mating, usually returning within two months. These inter-sexual differences in the occupation of the intertidal suggest that females breed with different males but also that males accept eggs from various females since, on their return, a new group of mating partners was now available. Thus, *N. lumbriciformis* might be considered polygynandric. The worm pipefish is a clearly dimorphic species in spite of the observed polygynandry, suggesting that differences in remating intervals may be influential in determining the strength of sexual selection along with what may be expected from the polygynandrous mating system alone.