Abstract
The freshwater crab Aegla platensis was used as a model to induce ovarian growth by adding different neuroregulators to a pellet food formulation. Added compounds were the dopaminergic inhibitor spiperone or the enkephalinergic inhibitor naloxone, both of them at a dose of 10^-8 mol/animal. Animals were fed on the enriched pellets twice a week. After 7 wk, the gonadosomatic index (GI) was calculated as (gonad fresh weight / body fresh weight) x 100. GI significantly increased only for those females fed on spiperone pellets, compared to a control group receiving pellets with no compound added. During the assayed period, spiperone would be reverting the arrest exerted by dopamine on the neuroendocrine stimulation of ovarian growth. On the other hand, for both spiperone and naloxone a higher GI was correlated to a higher lipid content of both gonads and/or hepatopancreas, suggesting an increased energetic demand in accordance with an active investment in reproduction. Rev. Biol. Trop. 56 (3): 1201-1207. Epub 2008 September 30.

Keywords
anomuran crabs, reproduction, ovarian growth, naloxone, spiperone