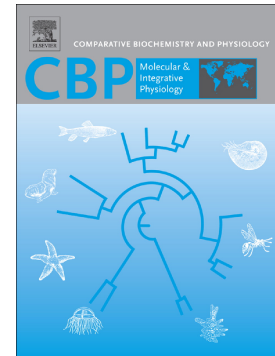


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**Effect of high temperature stress on heat shock protein expression and
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paramamosain***

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ABSTRACT

The present study aimed to investigate the effect rapid temperature change from moderate temperature to high temperatures on heat shock protein (HSP) expression and antioxidant enzyme activities in mud crabs. Two mud crabs, one with one spine on the outer margin of the carpus of cheliped (Sp1) and another with two spines (Sp2), were acclimated at 25°C and then transferred to a 33°C environment, and HSP expression and antioxidant enzyme activity were assessed. HSP70 and HSP60 were markedly up-regulated in the gills and hepatopancreas of

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