

(2002).
 550 (7.8), 50 μ, 1.87
 340 10 μ
 0.2, 0.5, 100, 2
 (2, 120 μ, 7.0)
 (1991).
 (1990).
 50%
 1 μ
 1 μ
 (1976).
 0.5.

2.5. Statistical analysis

2007.

$P=0.01$ 0.05.

3. Results

3.1. Antioxidant defense in the muscle of *S. paramamosain* under low temperature acclimation

S. paramamosain,
 37,
 62.8 /
S. paramamosain.
 27, 15, 56.5 / 10, 5, 50.6
 45.9, 27 ($P<0.05$ $P<0.01$,
 (0.1).
 (2007).
S. paramamosain.
 27, 0.8 /
S. paramamosain
 15, 1.6, 2.6 /
 5, 10, 27
 (P<0.01).

3.2. Four ATPase activities in *S. paramamosain* muscle under low temperature acclimation

2. +/+
 (P<0.05) 10 15 +/+
 5 27 +/+ (P>0.05).

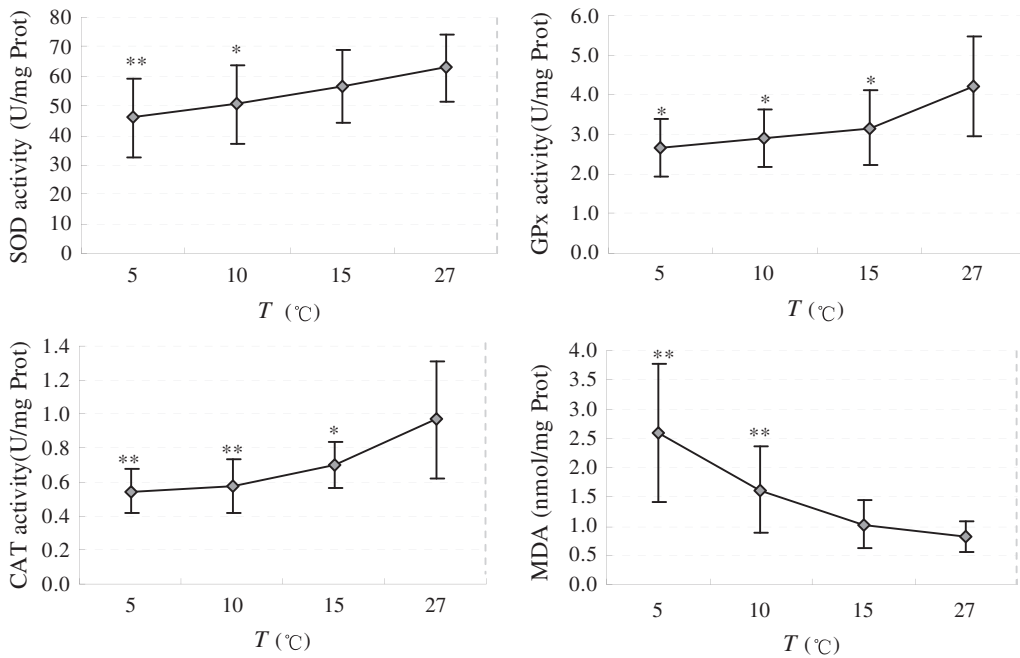


Fig. 1. *Scylla paramamosain* (n=10). ** (P<0.01), * (P<0.05); **** (P<0.0001).

$2+_{-}$, fi o 10 ($P < 0.01$).
 $2+_{/}$ $2+_{-}$ $2+_{\downarrow}$ 10 o o $fi-$
 o o o 27 o o o o
 5 o fi o o o o o o
 o ($P < 0.01$).

4. Discussion

0 0 0 2+ 0 0 0 2+
0 0 0 , fi 0 0 0 0
(0 , 2004). 5 0 0 0
2+ 2+ 2+ 2+ 0 0 0
0 0 2+ 0 0 0 0 0
0 2+ 0 0 0 0 0
0 0 0 0 0 0
0 0 0 0 0 0
10 0 0 0 15 0 0 5
0 0 0 0 0 0 0
0 5 0 0 0 0 0
0 0 0 0 0 2 0 0
0 5 0 0 0 0 0
0 5 0 0 0 0 0
2+ 2+ 5 0 fi 0 5 0
0 0 0 0 0 0 0
0 0 0 0 0 0 0
0 0 0 (0 , 2004). 0 0 0
0 0 0 0 0 0 0

(*Perca fluviatilis*), 1998, 58, 75–98. (*Perca fluviatilis*), 120, 777–783.
 1996, 114, 99–103. *Mytilus edulis*.
 1999, 124, 271–279. (*Zoarcetes viviparus*).
 1999, 122, 265–271.
 1992, 13, 459–468.
 (*Rutilus rutilus*) 65, 699–711. (*Salvelinus fontinalis*).
 1999, 123, 193–199.
 1995, 14, 157–164. *Mytilus galloprovincialis*.
 1995, 57, 43–68. (*Gadus morhua*).
 1994, 109, 413–421.
 1980, 67, 179–182. *Cyprinodon salinus*.
 1997, 37, 575–584.
 1989, 28, 291–295. 1990, 97, 37–42. *Mytilus galloprovincialis*.
 1991, 100 (1– 2), 187–190. 1991, 47, 454–457.
 2005, *Scylla serrata*, 13, 459–468.
 2006, 256, 624–630. *Macrobrachium nipponense*.
 2007, *Scylla serrata* (*Scylla serrata*).
 352, 129–138. 2001, *Persea persea*.
 203, 149–158. 1991, 100, 173–176.
 2000, 147–160. 1998, *in vitro* 2+, 533–536. 30,