

# Biological parameters for crustaceans of the NBSLME

Data preparation Workshop on Shrimp and ground fish of the NBSLME

Barbados

23-25 October 2018

Jeremy J. Mendoza

*Farfantepenaeus subtilis* (southern brown shrimp, crevette café, camarao rosa)



Max. Age: NA

Max length: 20.5 cm TL (Females); 15.2 cm TL (males); 5.5 cm CL (Females); 3.6 cm CL (males)

Growth:

Female:  $L_{\infty}=21.64$  cm TL ;  $K=1.10$

Silva et al. 2015 (NE Brazil)

Male:  $L_{\infty}= 19.74$  cm TL;  $K=1.06$

Silva et al. 2015 (NE Brazil)

Female:  $L_{\infty}= 22.5$  cm TL;  $K=1.0$

Isaac et al. 1992 (North Brazil)

Male:  $L_{\infty}= 18.7$  cm TL;  $K=1.08$

Isaac et al. 1992 (North Brazil)

Female:  $L_{\infty}= 23.63$ ;  $K= 1.0$

Aragao, 2012

Male:  $L_{\infty}= 21.53$  cm TL;  $K=0.94$

Aragao, 2012

# *Farfantepenaeus subtilis* (southern brown shrimp, crevette café, camarao rosa)



## Length-weight relations:

Female (CL):  $a = 0.5273$   $b = 3.12$

Female (CL):  $a = 0.5213$   $b = 3.24$

Male (CL) same as above

Unsexed (CL):  $a = 0.5334$   $b = 3.25$

Female (TL):  $0.0000321$   $b = 2.801$

Male (TL):  $0.0000259$   $b = 2.847$

Correa & Martinelli, 2009 (North Brazil)

Carvalho et al. 2015 (North Brazil)

Carvalho et al. 2015 (North Brazil)

Correa & Martinelli, 2009 (North Brazil)

Marcano et al., 1997 (Eastern Venezuela)

Marcano et al. 1997 (Eastern Venezuela)

## Length at maturity:

Females: 126,5 mm TL

Females: 11.9 cm TL

Cintra et al., 2004 (North Brazil)

Silva et al. 2016 (Pernambuco, Brazil)

*Xiphopenaeus kroyeri* (Atlantic seabob, crevette seabob, camarao sete barbas, Camaron titi)



Max. Age: NA

Max length: 13.4 cm TL (males); 14.88 cm TL (females)

Growth:

Male:  $L_{\infty}=2.87$  cm CL ;  $K=2.96$

Female:  $L_{\infty}= 3.08$  cm CL;  $K=2.12$

Male:  $L_{\infty}=3.10$  cm CL;  $K=1.7$

Female:  $L_{\infty}=3.30$  cm CL;  $K=1.5$

Da Silva et al. 2018 (SE Brazil)

Da Silva et al. 2018 (SE Brazil)

Reis et al. 2017 (SE Brazil)

Reis et al. 2017 (SE Brazil)

*Xiphopenaeus kroyeri* (Atlantic seabob, crevette seabob, camarao sete barbas, Camaron titi)



Length-weight relations:

Female (CL):  $a = 0.6762$

$b = 2.654$

Reis et al. 2017 (SE Brazil)

Male (CL):  $a = 0.6622$

$b = 2.821$

Reis et al. 2017 (SE Brazil)

Length at maturity:

Females: 126,5 mm TL

Cintra et al., 2004 (North Brazil)

Males: 1.2 cm CL

Da Silva et al. 2018 (SE Brazil)

Females: 1.3 cm CL

Da Silva et al. 2018 (SE Brazil)

Length-length:

Female:  $TL = 2.8 + 3.32 CL$

Male:  $TL = 2.03 + 3.77 CL$

Many more studies are available for the SE Brazil region, but much more south than the ones presented here.

*Farfantepenaeus brasiliensis* (Redspotted shrimp, crevette rose, camarao rosa, Camaron Rosado con manchas)

Max. Age: NA

Max length: 19.0 cm TL (unsexed)

Growth:

Male: Loo=17.6 cm TL ; K=1.62

Female: Loo= 20.5 cm TL; K=2.52

Male: Loo=21.9 cm TL; K=3.01

Mexico)

Female: Loo=26.6 cm TL CL; K=2.05

Male: Loo=23.0 cm TL ; K=0.84

Female: Loo= 28.0 cm TL; K=0.90

Mello, 1973 (Sao Paulo, Brazil)

Mello, 1973 (Sao Paulo, Brazil)

Arreguin-Sanchez, 1981 (Quintana Roo,

Arreguin-Sanchez, 1981 (Quintana Roo,  
Mexico)

Leite & Petrere, 2006 (Sao Paulo, Brazil)

Leite & Petrere, 2006 (Sao Paulo, Brazil)



*Farfantepenaeus brasiliensis* (Redspotted shrimp, crevette rose, camarao rosa, Camaron Rosado con manchas)



Length-weight relations:

Male (TL):  $a = 0.01$        $b = 2.94$

Leite & Petrere, 2006 (Sao Paulo, Brazil)

Female (TL):  $a = 0.008$        $b = 3.94$

Leite & Petrere, 2006 (Sao Paulo, Brazil)

Unsexed (CL):  $a = 0.5735$        $b = 3.27$   
Mexico)

Perez-Cataneda & Defeo, 2002 (Yucatan,

Length at maturity:

NA

Length-length:

NA