

## Tuna Research

Wexler, J.B., D. Margulies, and V.P. Scholey. *In press*. Temperature and dissolved oxygen requirements for survival of yellowfin tuna, *Thunnus albacares*, larvae. *J. Exp. Mar. Biol. Ecol.*

Zink, Ian C., Daniel D. Benetti, Philippe A. Douillet, Daniel Margulies, and Vernon P. Scholey. 2011. Improvement of water chemistry with *Bacillus* probiotics inclusion during simulated transport of yellowfin tuna yolk sac larvae. *North Amer. Jour. Aquaculture*, 73 (1): 42-48.

Buentello, J. A., C. Pohlentz, D. Margulies, V. P. Scholey, J. B. Wexler, D. Tovar-Ramírez, W. H. Neill, P. Hinojosa-Baltazar, and D. M. Gatlin, III. 2011. A preliminary study of digestive enzyme activities and amino acid composition of early juvenile yellowfin tuna (*Thunnus albacares*). *Aquaculture*, 312 (1): 205-211.

Wexler, J.B., S. Chow, T. Wakabayashi, K. Nohara, and D. Margulies. 2007. Temporal variation in growth of yellowfin tuna (*Thunnus albacares*) larvae in the Panama Bight, 1990-97. *Fish. Bull., U.S.* 105: 1-18.

Margulies, D., J.M. Suter, S.L. Hunt, R.J. Olson, V.P. Scholey, J.B. Wexler, and A. Nakazawa. 2007. Spawning and early development of captive yellowfin tuna (*Thunnus albacares*). *Fish. Bull., U.S.* 105: 249-265.

Margulies, D., V.P. Scholey, J.B. Wexler, R.J. Olson, J.M. Suter, and S.L. Hunt. 2007. A review of IATTC research on the early life history and reproductive biology of scombrids conducted at the Achotines Laboratory from 1985 to 2005. *Inter-Am. Trop. Tuna Comm., Special Report 16*: 63 pp.

Margulies, D., V. Scholey, S. Hunt, and J. Wexler. 2005. Achotines Lab studies diets for larval, juvenile yellowfin tuna. *Global Aquacul. Advocate*, 8(2): 87.

Scholey, V., D. Margulies, J. Wexler, and S. Hunt. 2004. Larval tuna research mimics ocean conditions in lab. *Global Aquacul. Advocate*, 7(1): 38.

Kimura, S., H. Nakata, D. Margulies, J. M. Suter, and S. L. Hunt. 2004. Effect of oceanic turbulence on the survival of yellowfin tuna larvae. *Nippon Suisan Gakkaishi*, 70: 175-178 (In Japanese with English abstract).

Takagi, M., S. Chow, T. Okamura, V.P. Scholey, A. Nakazawa, D. Margulies, J.B. Wexler, and N. Taniguchi. 2003. Mendelian inheritance and variation of four microsatellite DNA markers in the yellowfin tuna *Thunnus albacares*. *Fisheries Science*, 69: 1306-1308.

Niwa, Y., A. Nakazawa, D. Margulies, V. P. Scholey, J. B. Wexler, and S. Chow. 2003. Genetic monitoring for spawning ecology of captive yellowfin tuna (*Thunnus albacares*) using mitochondrial DNA variation. *Aquaculture*, 218: 387-395.

Wexler, J.B., V.P. Scholey, R.J. Olson, D. Margulies, A. Nakazawa, and J.M. Suter. 2003. Tank culture of yellowfin tuna, *Thunnus albacares*: developing a spawning population for research purposes. *Aquaculture*, 220: 327-353.

Scholey, V., D. Margulies, J. Wexler, and S. Hunt. 2003. Panamanian lab hosts research on tuna, other marine species. *Global Aquacult. Advocate*, 6(1): 75-76.

Loew, E. R., W. N. McFarland, and D. Margulies. 2002. Developmental changes in the visual pigments of the yellowfin tuna, *Thunnus albacares*. *Mar. Fresh. Behav. Physiol.*, 35 (4): 235-246.

Margulies, D., J.B. Wexler, K.T. Bentler, J.M. Suter, S. Masuma, N. Tezuka, K. Teruya, M. Oka, M. Kanematsu, and H. Nikaido. 2001. Food selection of yellowfin tuna, *Thunnus albacares*, larvae reared in the laboratory. *Inter-Am. Trop. Tuna Comm., Bull.* 22: 9-51.

Wexler, J.B., D. Margulies, S. Masuma, N. Tezuka, K. Teruya, M. Oka, M. Kanematsu, and H. Nikaido. 2001. Age validation and growth of yellowfin tuna, *Thunnus albacares*, larvae reared in the laboratory. *Inter-Am. Trop. Tuna Comm., Bull.* 22: 52-91.

Chow, S., V.P. Scholey, A. Nakazawa, D. Margulies, J.B. Wexler, R.J. Olson, and K. Hazama. 2001. Direct evidence for Mendelian inheritance of the variations in the ribosomal protein gene introns in yellowfin tuna (*Thunnus albacares*). *Mar. Biotechnol.*, 3: 22-26.

Scholey, V.P., D. Margulies, R.J. Olson, J.B. Wexler, J.M. Suter, and S. Hunt. 2001. Lab culture and reproduction of yellowfin tuna in Panama. *Global Aquacult. Advocate*, 4(2): 17-18.

Dickson, K.A., N.M. Johnson, J.M. Donley, J.A. Hoskinson, M.W. Hansen, and J.D. Tessier. 2000. Ontogenetic changes in characteristics required for endothermy in juvenile black skipjack tuna (*Euthynnus lineatus*). *J. Exper. Biol.*, 203: 3077-3087.

Margulies, D. 1997. Development of the visual system and inferred performance capabilities of larval and early juvenile scombrids. *Mar. Freshw. Behav. Physiol.*, 30: 75-98.

Margulies, D., V.P. Scholey, J.B. Wexler, R.J. Olson, A. Nakazawa, and J.M. Suter. 1997. Captive spawning of yellowfin tuna and the development of their eggs and larvae. *Tuna Newsletter*, (U.S. Nat. Mar. Fish. Serv., Southwest Fish. Center) 126: 4-5.

Dickson, K. A., J. M. Donley, J. A. Hoskinson, and N. Johnson. 1997. The development of endothermy in juvenile black skipjack tuna (*Euthynnus lineatus*) [abstract]. *Amer. Zool.*, 37: 151A.

Owen, R.W. 1997. Oceanographic atlas of habitats of larval tunas in the Pacific Ocean off the Azuero Peninsula, Panama. *Inter-Am. Trop. Tuna Comm., Data Report* 9: 31 pp.

Lauth, R.R., and R.J. Olson. 1996. Distribution and abundance of larval scombridae in relation to the physical environment in the northwestern Panama Bight. *Inter-Am. Trop. Tuna Comm., Bull.* 21: 127-167.

Dickson, K.A., J. Daniels, L. Enge, R. Fox, and N. Johnson. 1994. How hearts, percentage of red muscle, and heat exchangers vary with fish size in juvenile black skipjack tuna (*Euthynnus lineatus*) [abstract]. *The Physiologist*, 37 (5): A76.

Dickson, K.A. 1994. Tunas as small as 207 mm fork length can elevate muscle temperatures significantly above ambient water temperature. *J. Exp. Biol.*, 190: 79-93.

Margulies, D. 1993. Assessment of the nutritional condition of larval and early juvenile tuna and Spanish mackerel (Pisces: Scombridae) in the Panama Bight. *Mar. Biol.*, 115: 317-330.

Wexler, J.B. 1993. Validation of daily growth increments and estimation of growth rates of larval and early-juvenile black skipjack, *Euthynnus lineatus*, using otoliths. *Inter-Am. Trop. Tuna Comm., Bull.* 20: 399-440.

Scholey, V.P. 1993. Effects of temperature and food concentration on growth and survival of late-larval and early-juvenile black skipjack, *Euthynnus lineatus*. Masters Thesis, University of Washington, Seattle, Washington: 54 pp.

Dickson, K.A. 1993. Minimum size for endothermy in tuna [abstract]. *Amer. Zool.*, 33(5): 41A.

Olson, R.J., and V.P. Scholey. 1990. Captive tunas in a tropical marine research laboratory: growth of late-larval and early-juvenile black skipjack *Euthynnus lineatus*. *Fish. Bull, U.S.* 88: 821-828.

Dickson, K.A. 1988. At what size are tunas able to elevate muscle temperatures significantly? [abstract]. *Amer. Zool.*, 28(4): 46A.