

TOPIC	CODE	AUTHORS	AFFILIATIONS	TITLE
Public Outreach	O1	HSIN-YI YEH <sup>1</sup> , Chang-Po Chen <sup>1</sup> , and Po-Fen Lin <sup>2</sup>	<sup>1</sup> Research Center for Biodiversity, Academia Sinica, Taipei, Taiwan <sup>2</sup> National Museum of Nature Science, Taichung, Taiwan	Public Education and Social Actions for Conservation of the Horseshoe Crab, <i>Tachypleus Tridentatus</i> , in Taiwan
	O2	D. GRANT	Ocean Institute - Brookdale College, , New Jersey USA	Learning With Limulus - Tools for Teaching About Horseshoe Crabs in New Jersey
Assessment and Management	A1	S. F. MICHELS <sup>1</sup> and D. R. Smith <sup>2</sup>	<sup>1</sup> Delaware Division Fish & Wildlife, Dover, Delaware, USA <sup>2</sup> U.S. Geological Survey, Kearneysville, West Virginia, USA	Delaware Bay Horseshoe Crab Spawning Survey
	A2	M. SCLAFANI <sup>1</sup> , L. J. Brousseau <sup>1</sup> , K. M. McKown <sup>2</sup> , and D. R. Smith <sup>3</sup>	<sup>1</sup> Cornell Cooperative Extension, Centerport, NY, USA <sup>2</sup> New York State Department of Environmental Conservation, E. Setauket, New York, USA <sup>3</sup> U.S. Geological Survey, Kearneysville, West Virginia, USA	An Evaluation of a Horseshoe Crab ( <i>Limulus polyphemus</i> ) Beach Spawning Survey for Long Island, NY: Is One Sampling Method Suitable for the Region?
	A3	K. MCKOWN and R. Burgess	New York State Department of Environmental Conservation, New York, USA	Fishery Management of Horseshoe Crab in New York
	A4	WENG Zhao-hong <sup>1</sup> , XIE Yang-jie <sup>1</sup> , HONG Shuigen <sup>2</sup>	<sup>1</sup> Fisheries College & Institute of Fishery Biotechnology, Jimei University, Xiamen, P.R.China <sup>2</sup> School of Life Sciences, Xiamen University, Xiamen 361005, P.R.China	The Investigation on the Resources of Horseshoe Crab in Fujian Province of China
	A5	R. E. SAPIÉN-SILVA <sup>1</sup> , H. Ochoterena-Booth <sup>2</sup> , S. Gómez-Aguirre <sup>2</sup> , and F. Luna-Mendoza <sup>3</sup>	<sup>1</sup> Fac. Ciencias, Univ. Nal. Autón. México and Inst. Latino de México, México City, Mexico <sup>2</sup> Inst. Biol. Univ. Nal. Autón. México, México City, Mexico <sup>3</sup> Inst. Latino de México, México City, Mexico	Contribution to the Understanding of the Biology of the Horseshoe Crab <i>Limulus polyphemus</i> in the Yucatán Peninsula, Mexico.

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<b>Assessment and Management</b>	A6	L. J. GRAHAM, B. Murphy, and D. Hata	Virginia Tech, Blacksburg, Virginia, USA	Bycatch Associated with the Horseshoe Crab Trawl Survey
	A7	ERIC M. HALLERMAN <sup>1</sup> , Jim Fraser <sup>1</sup> , Dave Hata <sup>1</sup> , Sarah Karpanty <sup>1</sup> , Mike Eackles <sup>2</sup> , and Tim King <sup>2</sup>	<sup>1</sup> Virginia Polytech. Inst. State Univ., Blacksburg, Virginia, USA <sup>2</sup> U.S. Geological Survey, Kearneysville, West Virginia, USA	Horseshoe Crab Research at Virginia Tech University
	A8	M.-J. JAMES-PIRRI <sup>1</sup> , K. Tuxbury <sup>2</sup> , S. Marino <sup>3</sup> , S. Koch <sup>3</sup> , and W. Kurz <sup>4</sup>	<sup>1</sup> University of Rhode Island, Narragansett, Rhode Island, USA <sup>2</sup> Massachusetts Audubon Society, South Wellfleet, Massachusetts, USA <sup>3</sup> US Fish and Wildlife Service, Chatham, Massachusetts, USA <sup>4</sup> Duke University, Beaufort, North Carolina, USA	Summary of Past and Future Horseshoe Crab Research on Cape Cod, MA (USA)
	A9	S. D. GERHART	Fish and Wildlife Research Institute, St. Petersburg, Florida, USA	Preliminary Results on the Reproductive Activities of Horseshoe Crabs in Tampa Bay, Florida
	A10	R. M. O'RIORDAN <sup>1</sup> , W.J. Lee <sup>2</sup> , P.K.L Ng <sup>3</sup> , N.F. Ramsay <sup>1</sup> , N. Sivasothi <sup>3</sup>	<sup>1</sup> University College Cork, Ireland, <sup>2</sup> University of New Hampshire, USA, <sup>3</sup> National University of Singapore	The Ecology of <i>Carcinoscorpius rotundicauda</i> and <i>Tachypleus gigas</i> in Singapore
	A11	ROBERT A. FISHER <sup>1</sup> and Dylan 'Lee Fisher' <sup>2</sup>	<sup>1</sup> Virginia Institute of Marine Science, Gloucester Point, Virginia, USA <sup>2</sup> Virginia Junior Academy of Science, Gloucester High School, Gloucester, Virginia, USA	The Use of Bait Bags to Reduce the Need for Horseshoe Crab as Bait in the Virginia Whelk Fishery
<b>Genetics</b>	G1	Ming-Che Yang <sup>1,2</sup> , Chaolun Allen Chen <sup>1,2</sup> , Hwey-Lian Hsieh <sup>1</sup> , Chang-Po Chen <sup>1,3</sup>	<sup>1</sup> Research Center for Biodiversity, Academia Sinica, Nankang, Taipei, Taiwan <sup>2</sup> Institute of Oceanography, National Taiwan University, Taipei, Taiwan <sup>3</sup> Institute of Fishery Science, National Taiwan University, Taipei, Taiwan	Fine-scale Genetic Population Subdivision and Demographic History of the Asian Tree-spine Horseshoe Crab, <i>Tachypleus tridentatus</i> in Taiwan Strait

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<b>Genetics</b>	G2	S. E. JULIAN and M. L. Bartron	U.S. Fish & Wildlife Service, Lamar, Pennsylvania, USA	Genetic Diversity in the Horseshoe Crab ( <i>Limulus polyphemus</i> ) and Implications for Management.
	G3	S. NISHIDA and H. Koike	Laboratory of Biodiversity, SCS, Kyushu University, Fukuoka, Japan	Genetic Structure of the <i>Tachypleus tridentatus</i> (Japanese Horseshoe Crab) in Japan by MtDNA Sequences
	G4	JAMES C. PIERCE, Nirav Malani, Nisarg Patel, Benjamin Steger, Bradley Wubbenhorst	Bioinformatics Program, University of the Sciences in Philadelphia, Philadelphia, Pennsylvania, USA	Genome Analysis in the Ancient Marine Arthropod, <i>Limulus polyphemus</i> (horseshoe crab).
<b>Tagging and Telemetry</b>	T1	TOSHIFUMI WADA <sup>1</sup> , Ryo Kawabe <sup>2</sup> , Takahiro Mitsushio <sup>3</sup> , Hiroko Koike <sup>4</sup>	<sup>1</sup> Coastal Branch of Tottori Prefectural Museum, Japan <sup>2</sup> Institute for East China Sea Research, Nagasaki University, Japan <sup>3</sup> Fukuoka Prefectural Fisheries High School, Japan <sup>4</sup> Kyushu University, Japan	Automated Acoustic Tracking of the Endangered Horseshoe Crab: Monitoring Trial in a Small-scale Bay
	T2	M. T. MANDT <sup>1</sup> , D. R. Smith <sup>1</sup> , J. A. Young <sup>1</sup> , and L. J. Brousseau <sup>2</sup>	<sup>1</sup> U.S. Geological Survey, Leetown Science Center, Kearneysville, West Virginia, USA <sup>2</sup> Cornell University Cooperative Extension, Centerport, New York, USA	Identification of Horseshoe Crab ( <i>Limulus polyphemus</i> ) Migratory Pathways Using Telemetry and Archival Tags
	T3	J.H. MATTEI and M.A. Beekey	Sacred Heart Univ., Fairfield, Connecticut, USA	Breeding Behavior and Movement Patterns of <i>Limulus polyphemus</i> in Long Island Sound: Results From a 10 year Tagging Study
	T4	S. M. EYLER <sup>1</sup> , D. R. Smith <sup>2</sup> , and M. J. Millard <sup>3</sup>	<sup>1</sup> U.S. Fish and Wildlife Service, Annapolis, Maryland, USA <sup>2</sup> USGS, Leetown, West Virginia, <sup>3</sup> U.S. Fish and Wildlife Service, Lamar, Pennsylvania, USA	Results and Benefits of a Coordinated Atlantic Coast Tagging Program for Horseshoe Crabs

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Tagging and Telemetry	T5	L. J. BROUSSEAU <sup>1</sup> , D. R. Smith <sup>2</sup> , M. Sclafani <sup>1</sup> , M. J. Millard <sup>3</sup>	<sup>1</sup> Cornell University Cooperative Extension, Centerport, New York, USA <sup>2</sup> U.S. Geological Survey, Leetown Science Center, Kearneysville, West Virginia, USA <sup>3</sup> U.S. Fish and Wildlife Service, Lamar, Pennsylvania, USA	Use of a Baywide Radio Telemetry Array to Study Horseshoe Crab ( <i>Limulus polyphemus</i> ) Spawning Behavior.
Behavior and Life History	B1	W.H. WATSON <sup>1</sup> , L.Bedford <sup>1</sup> ,and C.C. Chabot <sup>2</sup>	<sup>1</sup> Univ. of NH, Durham, New Hampshire, USA <sup>2</sup> Plymouth St. Univ., Plymouth, New Hampshire, USA	Dissociation Between Circadian Rhythms of Visual Sensitivity and Circatidal Rhythms of Locomotion in the Horseshoe crab, <i>Limulus polyphemus</i>
	B2	C. C. CHABOT <sup>1</sup> , C.T. Doyle <sup>1</sup> , A. J. Moore <sup>1</sup> , C.B. O'Donnell <sup>1</sup> , J.F. Yelle <sup>1</sup> , and W.H. Watson <sup>2</sup>	<sup>1</sup> Plymouth State University, Plymouth, New Hampshire, USA <sup>2</sup> University of New Hampshire, Durham, New Hampshire, USA	The Relevance of Environmental Cues to the Temporal Partitioning of Behavior in the American Horseshoe Crab, <i>Limulus polyphemus</i> .
	B3	S.Y. SCHALLER	University of New Hampshire, Durham, New Hampshire, USA	Environmental Factors Triggering Spawning in the American Horseshoe Crab ( <i>Limulus polyphemus</i> ) in Northern New England: a Regression Analysis.
	B4	R. E. SAPIÉN-SILVA <sup>1</sup> , J. Núñez-Farfán <sup>2</sup> , H. Ochoterena-Booth <sup>3</sup> , F. Luna-Mendoza <sup>4</sup> , and R. M. González-González <sup>1</sup>	<sup>1</sup> Fac. Ciencias, Univ. Nal. Autón. México and Inst. Latino México, México City, Mexico <sup>2</sup> Inst. Ecol. Univ. Nal. Autón. México, México City, Mexico <sup>3</sup> Inst. Biol. Univ. Nal. Autón. México, México City, Mexico <sup>4</sup> Inst. Latino de México, México City, Mexico	Analysis of Adult Sizes and Mate Preferences in the Mexican Populations of Horseshoe Crab <i>Limulus polyphemus</i> .
	B5	D. R. SMITH and M. T. Mandt	U.S. Geological Survey, Leetown Science Center, Kearneysville, West Virginia, USA	Sexual Size Dimorphism in Horseshoe Crabs ( <i>Limulus polyphemus</i> ): A Test of Competing Hypotheses

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Behavior and Life History	B6	M. D. SMITH and H. J. Brockmann	University of Florida, Gainesville, Florida, USA	Evolution of Body Size in <i>Limulus polyphemus</i>
Culture and Biology	C1	S.G. CHEUNG <sup>1</sup> , H.Y. Li <sup>1</sup> , P.K.S. Shin <sup>1</sup> , and C. Ke <sup>2</sup>	<sup>1</sup> City University of Hong Kong, Hong Kong, China <sup>2</sup> Xiamen University, China	Artificial Breeding of Horseshoe Crabs in Hong Kong
	C2	HONG SHUIGEN <sup>1</sup> , Zheng Maoshi <sup>2</sup> , Hong Rongbiao <sup>2</sup> , and Weng Zhaohong <sup>3</sup>	<sup>1</sup> School of Life Sciences, Xiamen University, Xiamen, P. R. China <sup>2</sup> Oceans and Fisheries Bureau of Xiamen, P. R. China <sup>3</sup> Fisheries College & Institute of Fishery Biotechnology, Jimei University, Xiamen, P. R. China	Protection and Artificial Incubation of Horseshoe Crab <i>Tachypleus tridentatus</i>
	C3	T. TZAFRIR_PRAG <sup>1</sup> , I. Lupatsch <sup>2</sup> , C. B .Zarnoch <sup>1</sup> , and M. P. Schreibman <sup>1</sup>	<sup>1</sup> Brooklyn College AREAC, CUNY, Brooklyn, New York, USA <sup>2</sup> University of Wales, Swansea, Wales, UK	Estimation of Nutrient Requirements for Atlantic Horseshoe Crabs ( <i>Limulus polyphemus</i> ; Linnaeus) Grown in Captivity
	C4	CHRISTINE N. LEE and Brian Morton	The Swire Institute of Marine Science, The University of Hong Kong, Hong Kong	Emergence Rate of Juvenile <i>Tachypleus tridentatus</i> Under Simulated Tidal Conditions in the Laboratory and at Two Different Sediment Temperatures
	C5	SH. SHAKIBA ZADEH, A. Christianus, M. S. Kamarudin, and C. R. Saad	Universiti Putra Malaysia, Serdang, Selangor, Malaysia	Comparison Between Early Instar Stages of <i>Carcinoscorpius rotundicauda</i> and <i>Tachypleus gigas</i>
	C6	P. HAJEB, A. Christianus, Sh. Shakibazadeh, and C. R. Saad	Universiti Putra Malaysia, Serdang, Selangor, Malaysia	Sperm Attachment on the Egg of Malaysian King Crab, <i>Carcinoscorpius rotundicauda</i>

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<b>Habitat</b>	H1	M. L. BOTTON <sup>1</sup> , J. Mattei <sup>2</sup> , G. S. Robinson <sup>1</sup> , and M. A. Beekey <sup>2</sup>	<sup>1</sup> Fordham Univ., New York, New York, USA <sup>2</sup> Sacred Heart Univ., Fairfield, Connecticut, USA	Horseshoe Crabs in New Haven Harbor: An Initial Study of Reproductive Biology and Beach Quality
	H2	R. E. LOVELAND <sup>1</sup> and M. L. Botton <sup>2</sup>	<sup>1</sup> Rutgers University, New Brunswick, New Jersey, USA <sup>2</sup> Fordham University, New York, New York, USA	A Comparison of Sandy Beaches with Marginal Habitats for Spawning Horseshoe Crabs ( <i>Limulus polyphemus</i> ) in Lower Delaware Bay, New Jersey
	H3	XIE Yang-jie <sup>1</sup> , WENG Zhao-hong <sup>1</sup> , XIAO Zhi-qun <sup>1</sup> , Hong Shui-gen <sup>2</sup>	<sup>1</sup> Fisheries College & Institute of Fishery Biotechnology, Jimei University, Xiamen, P.R.China <sup>2</sup> School of Life Sciences, Xiamen University, Xiamen, P.R.China	Study on the Construction and Management of the Protected Area for <i>Tachypleus tridentatus</i> Leach in Xiamen
<b>Pollution and Bio-chemistry</b>	P1	S. A. SCHMIDT <sup>1</sup> , P. M. Gaffney <sup>1</sup> , and P. J. Green <sup>2</sup>	<sup>1</sup> University of Delaware College of Marine and Earth Studies, Lewes, Delaware, USA <sup>2</sup> University of Delaware, Delaware Biotechnology Institute, Newark, Delaware, USA	Intraspecific Variation in the Effects of Trace Metals on Late-Stage <i>Limulus polyphemus</i> Embryos
	P2	P. HAJEB, A. Christianus, A. Ismail, Sh. Shakibazadeh	Universiti Putra Malaysia, Serdang, Selangor, Malaysia	Heavy metal toxicity in horseshoe crab eggs in crucial breeding grounds in Malaysia ( <i>Carcinoscorpius rotundicauda</i> and <i>Tachypleus gigas</i> )
	P3	M.G. HAMILTON, A.F. Worden, M.A. Reilly, and M.L. Botton	Fordham College at Lincoln Center, New York, New York, USA	Factors Affecting Heat Shock Protein (Hsp70) Levels in Horseshoe Crab ( <i>Limulus polyphemus</i> ) Embryos: Effects of Temperature and Exposure to Copper
	P4	C. FIORESE, S-L. Yang, M.L. Botton, and M.G. Hamilton	Fordham College at Lincoln Center, New York, New York, USA	Discovering the Differences in Heat Shock Protein Expression in the Development of <i>Limulus polyphemus</i>
<b>Medicine</b>	M	S. A. Smith, T. Spotswood and M.W. NOLAN	Virginia-Maryland Regional College of Veterinary Medicine, Virginia Polytechnic Institute and State Univ., Blacksburg, Virginia	Survey and Contrast Radiographic Studies of the Horseshoe Crab ( <i>Limulus polyphemus</i> )