# *Curriculum vitae*   (CHEN, YONG)

## PERSONAL DATA:

**Business and mailing address:**

218 Libby Hall
School of Marine Sciences
University of Maine
Orono,  Maine 04469
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Email: ychen@maine.edu
Chen Lab Website:  https://www.umaine.edu/chenlab/

**Current position:**

**Tenured Full Professor**
**Fellow of the Senator George J. Mitchell Center for Sustainability Solutions**

## EDUCATION:

**Doctor of Philosophy in Zoology with minor in Statistics**, September 1991 – April 1995
Department of Zoology, University of Toronto, Canada.
**Supervisor**: Professor J. E. Paloheimo.
**Major**: *Fisheries population dynamics*
**Minor**: *Statistics*.
**Thesis title**: *Parameter estimation and data analysis in fisheries*.

**Master of Science in Zoology**, January 1990 - November 1991 (degree awarded in Nov. 1991).   Department of Zoology, University of Toronto, Canada.
**Supervisor**: Professor H. H. Harvey
**Major**: Fish Ecology
**Thesis title**: Growth comparisons and analysis on thirty-three white sucker, *Catostomus commersoni*, populations in Ontario with reference to environmental variables.

**Bachelour of Agriculture in Fisheries Science**, September 1979-July 1983.
Department of Fisheries, Qingdao Ocean University (now Ocean University of China)
**Specialist Program** in Fishing Science
**Thesis title**: Design of 600 HP Pair Trawls.

## GENERAL RESEARCH INTERESTS AND EXPERTISE:

Fisheries Ecology, Life History, Population Dynamics, Fisheries Stock Assessment, Fisheries Management, Fisheries Oceanography, Sampling/Survey Design, Climate Change, Conservation Ecology, Habitat, Ecosystem-based Management, Harvest Control Rules and Management Strategy Evaluation, Statistical and Mathematical Modelling, Computer Simulations, Computation-intensive Methods, Multivariate Statistics, Spatial Statistics, Complex System Analysis, and Ecosystem Modelling.

## AWARDS

1990: University of Toronto Open Fellowship.

1991: Jeanne F. Goulding Ecological Fellowship.

1992: Canadian Natural Sciences and Engineering Research Council Postgraduate Scholarship.

1992: Ontario Graduate Scholarship (**declined due to the NSERC scholarship**).

1993: Canadian Natural Sciences and Engineering Research Council Postgraduate Scholarship.

1994: Ontario Graduate Scholarship.

1995-96: Canadian Natural Sciences and Engineering Research Council (NSERC) Postdoctoral Fellowship (**declined due to the acceptance of a job in the New South Wales Fisheries Department in Australia**).

1997 – 2000: NSERC Associate Chair in Fisheries Conservation at the Memorial University of Newfoundland

1998-2000: Researcher of the Canadian Foundation for Innovation

**2008: University of Maine Graduate Mentor Award**


## SELECTED COMMITTEE AND SERVICE WORK SINCE YEAR 2000

- ➤ **Editor**, Canadian Journal of Fisheries and Aquatic Sciences (Feb. 1, 2013 –)
- ➤ **Member,** New England Fisheries Management Council Scientific and Statistical (**SSC**) Committee (2011 – present)
- ➤ **Chair, Peer Committee**, School of Marine Sciences, University of Maine (Sept. 1, 2016 – Present)
- ➤ **Co-Editor-in-Chief**, Aquaculture and Fisheries (June 1, 2016 - )
- ➤ **Faculty Advisor for the ICES Student Stock Assessment Review:** each year since 2014 my lab is one of the two labs in the USA to conduct peer review for ICES fish stock assessments. The review is done by my graduate students and postdocs under my advice who then report back to the general ICES stock assessment workshops. EU uses our review results to decide if a reviewed stock assessment work can be used for determining total allowable

catch for a particular fishery. We usually review assessment reports for 15+ fisheries stocks managed by the EU.

➢ **Associate Editor**, Canadian Journal of Fisheries and Aquatic Sciences (2007- Feb. 2013)
➢ **Panelist**, NOAA Pacific Islands Fisheries Science Center Stock Assessment Science Program Review (May 19-23, 2014)
➢ **Coordinator,** University of Maine Marine Policy Program (2009- 2014)
➢ **Coordinator**, University of Maine Dual Master Degree program in Natural and Social Sciences (2009- 2014)
➢ **Member** of the SMS Peer Review Committee and Space Committee (2004 – 2006, 2009 - 2015)
➢ **Editorial board,** Journal of Ocean University of China (2011-present), Acta Oceanologica Sinica (2014- present)
➢ **Center of Independent Expert (CIE) for reviewing NOAA Fisheries Stock Assessment** (have done reviews for Caribbean blue tang and triggerfish, Gulf of Mexico tilefish and yellowedge grouper, Pacific cod, albacore, billfish, Alaska crab survey, rockfish,……).
➢ **Member** of Peer-review Committee of New Jersey Offshore Wind Power Project Environmental Assessment (2008 – 2010)
➢ **Co-Chair** of the Atlantic States Marine Fisheries Commission Horseshoe Crab Stock Assessment Peer Review Committee (Dec. 2009)
➢ **Member** of the Review Panel of American Lobster Sampling/Scientific Survey Program of the Maine Department of Marine Resources (2009) and California spiny lobster stock assessment program (2011)
➢ **Member** of the Editorial Board of Chinese Journal of Fisheries Science (2008 – present)
➢ **Chair**, School of Marine Science (SMS) Graduate Admission Committee (2003- 2004)
➢ **Member** of the SMS Graduate Admission Committee (2001-2003);
➢ **Member** of the Atlantic State Marine Fisheries Commission Lobster Model Development Committee (*the stock assessment framework developed in my lab has been used to assess the American lobster fisheries in the US*);
➢ **Fisheries Conservation Advisor** for the Kuwait Institute of Sciences (evaluating the impacts of the Gulf War on the Kuwait fisheries resources);
➢ NMFS Stock Assessment Review Committee 37,
➢ **More** fisheries stock assessment committee work in the US and Canada…….

## WORK EXPERIENCE
**School of Marine Sciences, University of Maine, Orono**
- Professor (tenured, 9/1/2007 - present)
- Associate Professor (tenured, 9/1/2003 –8/31/2007)

- Assistant Professor (7/1/2000 – 8/31/2003)

**Senator George J. Mitchell Center for Sustainability Solutions, University of Maine, Orono**
- Fellow in the Senator George J. Mitchell Center for Sustainability Solutions (2014 – present)

**Memorial University of Newfoundland, Canada**
- Adjunct Professor of Biology Department (May 2001 – 2007)
- Assistant Professor (July 1997 – August 2000), Fisheries and Marine Institute
- NSERC Associate Chair in Fisheries Conservation (July 1997 – August 2000)
- Cross-appointed to the Department of Biology (August 1997 – August 2000)
- Cross-appointed to the Department of Mathematics & Statistics (Sept. 1997 – Aug. 2000)
- Canada Foundation for Innovation Researcher (January 1999 - Aug. 2000)

**New South Wales (NSW) Fisheries Research Institute, Cronulla, NSW, Australia**
- Population Dynamicist (Scientific Officer, probation) January 1995 - January 1996
- Population Dynamicist (permanent NSW State civil servant) January 1996 - June 1996
- Senior Population Dynamicist (permanent NSW State civil servant) July 1996 - July 1997

# OTHER WORK EXPERIENCE

**Instructor,** Training Class on Computer Simulations in Fisheries, Pacific Island Fisheries Science Center, May 2015.

**Kuwait Institute of Scientific Research (Consultant)**
- Fisheries Conservation Consultant (studied the impacts of the Gulf War on the area fisheries and provided the results to the UN War Compensation Committee (2000 - 2002).

**National Institute of Waters and Atmospheric Research, Wellington, New Zealand**
- NIWA Fisheries Stock Assessment Visiting Scientist April 1999 - May 1999

**Ocean University of China**
- Adjunct Professor in Fisheries (Jan. 2005 – present)

**Central China Agricultural University, Wuhan, China**
- Adjunct Professor in Fisheries (Jan. 2005 – present)
- Teaching Assistant (July 1983 – Nov. 1988)

**Shanghai Ocean University**
- Adjunct Professor (2006 – present)

- Sabbatical Visiting Professor (Jan. – Dec. 2015)

**National Taiwan University**
- Visiting Professor March 2004, October 2005
- Sabbatical Visiting Professor Oct. 2006 – January 2007 (Sabbatical, Invited and financially supported by the National Research Council)

**Omani Ministry of Fisheries Wealth**
- Scientific Consultant and Reviewer (March, July-August 2009, 2013 - present)

**Worldfish Center, Penang, Malaysia**
- Visiting Scientist Sept. 2006 (Sabbatical, Invited and financially supported by the Worldfish Center)

**Department of Zoology, University of Toronto**:
1990-1994: BIO150Y Lab Instructor.
1991-1992: ZOO486H Teaching Assistant in Environmental Factor Lab Course.
1988-1994: Graduate Research Assistant.


# TEACHING ACTIVITY
## Courses lectured at the Memorial University of Newfoundland (September 1997- July 2000)

**Graduate course**:
MMS6002 Quantitative Methods in Fisheries for graduate students in Fisheries Resources Management Program (3 credits; every fall semester)
**Undergraduate course:**
STAT2500 Statistics for Business and Arts (3 credits; every fall semester)


## Courses lectured at the University of Maine (since July 1, 2000; Research:Teaching - 75%:25%)

**Graduate courses**
SMS 562 Fisheries Population Dynamics (3 credits; every Fall semester, 100% responsibility)
SMS 598-05:Special topics in Marine Sciences (3 credits, spring 2001, 100% responsibility)
SMS 598-001: Special topics in Marine Science: Spatial dynamics of marine fisheries and its impacts on fisheries stock assessment and management (3 credits, spring 2002, 100% responsibility)
SMS 597: Independent study: Spatial analysis of fisheries data (3 credits, as needed,

100% responsibility)

SMS 597: Statistical Modelling (3 credit, as needed, 100% responsibility)

SMS 699. Graduate thesis (fall, summer, and spring semesters, 100% teaching responsibility): Each MS student takes about 9 thesis credit hours, and each PhD students take 18+ thesis credit hours.

**Undergraduate course**

SMS 321 Introduction to Fisheries Sciences (3 credits, every Spring semester, 100% responsibility)

SMS 400 Capstone Research Experience (3-4 credits, 100% responsibility)

# COMPUTER PROGRAMMING LANGUAGES AND SOFTWARE PROFICIENT:

AD Model Builder, C, C++, R, FORTRAN, SAS, Integrated Stock Assessment Toolbox software (e.g., Stock Synthesis), and NTSYS (for multivariate analysis)

# MAJOR STOCK ASSESSMENT PROGRAM AND COMPUTER SOFTWARE DEVELOPED

✓ *Bayesian seasonal and sex-specific length-structured American Lobster Stock Assessment Model (Named as University of Maine Model), which has been used by Atlantic States Marine Fisheries Commission for the assessment of all the three lobster stocks in northeast USA (Gulf of Maine, Georges Bank and Southern New England stocks)*

✓ *Sex-specific length-structured stock assessment model for northern shrimp stock in the Gulf of Maine (used by Atlantic States Marine Fisheries Commission).*

✓ *Individual-based management strategy evaluation (MSE) for California spiny lobster*

✓ *Bayesian length-structured stock assessment model for green sea urchin in the state of Maine*

# RESEARCH GRANTS
**Research grants held at the Memorial University of Newfoundland (Canada)**

(1) "Assessing fish stocks using robust methods" Canadian Natural Science and Engineering Research Council (NSERC) operating grant - $73,600, 1998-2001 (Chen)

(2) "The dynamics of fish stocks and their ecosystems in Newfoundland and Labrador" Canadian Natural Science and Engineering Research Council (NSERC) — Industry Chair program - $36,000 1997-2001 (Chen)

(3) "Cod ecosystems" Canadian Natural Science and Engineering Research Council (NSERC) Chair in Fisheries Conservation — $5,000,000 from 1997 to 2001 (excluding ship time) (Rose, Snelgrove, and Chen)

(4) A New Initiative in Fisheries and Marine Science at the Memorial University of Newfoundland; Application of New Acoustic Technologies to the Newfoundland Marine Ecosystem - $367,000 1998-1999 (Rose, Snelgrove, and Chen)

**Grants held at the University of Maine since July 1, 2000**
1) Start-up fund from the University of Maine $73,000 (2000 - 2002) (Chen)
2) NOAA/Sea Grant program: Simulation study of the lobster egg-per-recruit model $5,292 (Nov. 2000 – Jan. 2002) (Chen and C. Wilson)
3) National Science Foundation China: A risk analysis of aquaculture program on lake ecosystem in China, 400,000 Chinese Dollars (2000-2003) (Yong Chen of UMaine and L. Chen of East China Normal University). The grant is managed by East China Normal Univ. in Shanghai, China
4) Northeast Consortium/NOAA: Developing stock assessment methods for the New England deep-sea red crab fishery (part I) (2001-2003) (Wahle, Williams, and Chen). $274,783
5) NOAA Saltonstall-Kennedy Program, Developing stock assessment methods for the New England deep-sea red crab fishery (part II) (2002) (Wahle, Williams, and Chen). $85,302
6) Maine Marine Science Program (DMR): Study lobster and sea urchin population dynamics in Maine $43,800 (2001-2002) (Chen)
**7)** Maine Department of Marine Resources: Lobster stock assessment and biological reference point $50,000 (2001-2002) (Chen)
8) Maine Sea Urchin Zone Council: Developing a fishery-independent survey program for the Maine sea urchin population $79,000 (2001-2002) (Russell, Hunter, and Chen)
9) Thistle Marine LLC. Spatial dynamics of the lobster fishery $7,900 (2002) (Chen)
**10)** Northeast Consortium/NOAA: Developing a computer simulation framework for identifying an optimal fishery-independent survey program for the MS sea urchin population. $23,920 (2001-2002) (Chen)
11) NOAA/Sea Grant: Developing a Bayesian framework for the American lobster stock assessment $201,188 (Feb. 2002-Jan. 2004) (Chen and Wilson)
12) Maine Department of Environmental Protection/Sea Grant: Spatial dynamics of the lobster stock and fishing effort. $70,000 (Feb. 2002-Jan. 2004) (Chen et al.)
13) Maine Sea Urchin Zone Council: Developing, evaluating, and refining stock assessment framework for the Maine sea urchin fishery $39,038 (2002-2003) (Chen and Hunter)
14) Maine Sea Grant and MIT Sea Grant: a preliminary study of spatial dynamics of groundfish fisheries in the Gulf of Maine. $18,710 (2002) (Chen)
15) NOAA Synthesis Program: Impacts of transport process on lobster fishery patterns. (2002-2004) Incze and other 10 PIs ($69,847 for Chen)
16) Northeast Consortium/NOAA: Abundance, migration and recruitment of Northern shrimp in the Gulf of Maine: an industry-initiated verification survey and environmental monitoring pilot project. (2002-2003) Schick and other 11 PIs ($3,000 for data analysis, Chen)
17) Northeast Consortium/NOAA: A preliminary study of Maine sea cucumber fishery ($25,000) (Chen and Feindel)
18) National Marine Fisheries Services: Codend mesh selectivity in the Gulf of Maine: Multispecies trawl fishery. $182,560 (He, Bouchard, and Chen)
19) Maine Department of Marine Resources: Studying the Jonah crab fishery in Maine. $38,557 (2001-2004) (Chen)
20) Maine Lobster Advisory Committee and Department of Marine Resources: An assessment of American Lobster stock in the Gulf of Maine. $33,409 (2003-2004) (Chen)

21) Maine Department of Marine Resources: Cooperative fisheries research. $26,727 (2003-2004) (Chen)
22) Northeast Consortium/NOAA: An evaluation of the Maine sea cucumber resources and impacts of exploitation $163,745. 2003-2007 (Chen et al.)
23) Maine Department of Marine Resources: cooperative fisheries research. $33,409 (2004-2005) (Chen)
24) Atlantic State Marine Fisheries Commission: Lobster stock assessment. $41,207 (2004-2006) (Chen)
25) Maine Department of Marine Resources: Study of marine baitworm in Maine. $32,517 (2004-2005) (Chen)
26) Maine Lobster Advisory Committee: Testing biological reference point for the American lobster. $29,600 (2004-2005) (Chen)
27) Maine Sea Grant /Northeast Consortium: Fisheries Research in Maine. $40,000, Chen (2004 – 2005)
28) Sea Grant/NOAA: An agent-based model of the Maine lobster fishery. Wilson, Chen, and Hiebeler $75,041 for Chen (2004-2007)
29) NOAA and National Sea Grant: Fisheries Population Dynamics PhD Fellowship program $114,390 Chen (2005 – 2008)
30) NOAA/Maine Sea Grant: Developing and evaluating biological reference points for the American lobster (*Homarus americanus*) fishery management. $219,959 Chen (2006 – 2008).
31) NOAA/Cape Cod Commercial Hook Fishermen's Association: Using Hook and Line to Minimize Cod Bycatch in a Directed Haddock Fishery on Georges Bank and in the Gulf of Maine. $17,211 Chen (2006)
32) Maine Department of Marine Resources: Monhegan project: closed area investigation of effort in the Maine lobster fishery. $2,988 (2006) Chen
33) Maine Sea Grant: A preliminary study to develop and evaluate spatially-explicit stock assessment model for cod fisheries. $4,000 (2006-2007) Chen
34) Maine Sea Grant: Analyzing Maine inshore groundfish trawl survey data. $31,290 (2006-2007) Chen
35) Maine Department of Marine Resources Cooperative Agreement for Assessing the Maine Marine Resources, $ 17,835, Chen (2006-2007)
36) Department of Marine Resources: Lobster Research, Education and Development: Developing, evaluating, and outreaching the Bayesian length-structure lobster stock assessment model, $139,549, Chen and Wilson (2007-2008)
37) Department of Marine Resources: Lobster Research, Education and Development: Analyzing growth data of American lobster, $70,000, Wahle, Chen and Lawson (2007-2008)
38) National Science Foundation (NSF): Collaborative Research: Direct and indirect coupling of fisheries through economic, regulatory, environmental and ecological linkages, Holland et al. ($100,000 for Chen; 2007-2012).
39) Maine Department of Marine Resources: Cooperative fisheries research. $14,998 (2007-2008) (Chen)

40) NOAA/ Sea Grant: Modeling ecosystem dynamics for American lobster (*Homarus americanus*) in the Gulf of Maine. $205,880, Chen and Wilson (2008 - 2010)

41) NASA: Lobster settlement forecasting in the Gulf of Maine. $500,000, Thomas, Xue, Chen, Wahle, and Pershing (2008 – 2010)

42) Maine Department of Marine Resources Cooperative Agreement for Assessing the Maine Marine Resources,  $ 14,222, Chen (2008-2009)

43) Maine Department of Marine Resources: Studying the northern shrimp trap fisheries in Maine. $51,630, Chen, (2009-2011)

44) Maine Department of Marine Resources: Developing a sea scallop sampling program for their distribution and abundance in federal waters of the Gulf of Maine $31,051, Chen, (2009-2010)

45) NSF/Gulf of Maine Research Institute: A study of the growth of juvenile American lobsters. $106,017, Chen, (2009-2011)

46) NFS: Fine-scale Dynamics of Human Adaptation in Coupled Natural and Social Systems: An Integrated Computational Approach Applied to Three Fisheries $1,021,289, Wilson, Acheson, Chen, and Johnson (2009-2013)

47) NOAA/Maine Sea Grant: A comparative study of monitoring programs for coherence in quantifying the dynamics of American lobster fisheries in the state of Maine. $129,368, Chen and Wilson (2010-2013)

48) NOAA/Maine DMR: Retrospective problems in Atlantic herring stock assessment. $178,547. Chen (2010-2013)

49) NOAA/CINAR: Incorporating Sediment and Hydrography Data in Assessments for Tilefish and Lobster. $39,283 (Chen) 2010-2012

50) Penobscot East Resource Center. Developing a longline sentinel survey fishery.  $70,000 (Chen) 2011-2013.

51) National Sea Gran/NOAA: Spatial dynamics in fisheries stock assessment. $115,500 (Chen and Hart) 2010-2013

52) Maine DMR: Update and maintenance of American lobster stock assessment model, $29,116 (Chen) 2011

53) Maine Department of Marine Resources: Evaluating growth of scallop in Cobscook Bay (Chen) $10,424 (2012)

54)  Maine DMR: Extended study of trap bycatch in the shrimp fishery. $10,933 (Chen) 2011

55)  NOAA/Maine DMR: Retrospective problems in Atlantic herring stock assessment. (Chen) $178,547 (Chen) 2010-2013

56) Maine Department of Marine Resources and Atlantic States Marine Fisheries Commission. Developing Bayesian stock assessment model for northern shrimp $115,000 (Chen) (2012-2014)

57) Maine Department of Marine Resources: Scallop survey in federal waters of Gulf of Maine (Chen)  $71,218 (2012-2014)

58) Maine Department of Marine Resources and NOAA Cooperative Research Program: Spatio-Temporal Distribution of Cusk Bycatch in the Gulf Of Maine Lobster Fishery(Chen) $52,930 (2012 – 2013)

59) NOAA Cooperative Research Program: develop a sentinel survey longline fishery in northern Gulf of Maine (Chen and Dority). $207,930 (2012-2013)
60) California Department of Fish and Games: Develop management strategy evaluation for California spiny lobster. (Chen) $106,296 (2012-2013)
61) NOAA: The Eastern Gulf of Maine sentinel jigging/longline survey/fishery in 2013. (Chen and Dority) $212,027 (2013-2014)
62) Maine DMR: Update and maintenance of American lobster stock assessment model, $25,000 (Chen) 2013-2014
63) NOAA NERO: Improving survivability of cusk bycatch in the GOM, $10,000 (Chen) 2012-13.
64) NOAA: A preliminary study to develop an abundance index for cusk from their bycatch in the Gulf of Maine lobster trap fishery, $11,076 (Chen) 2013-2014.
65) NSF Coastal SEES: Collaborative Research: Resilience and Adaptation of a Coastal Ecological-Economic System in Response to Increasing Temperature. $1,125,760 (Pershing, Chen, Wahle, Thomas) (2013-2017)
66) NOAA/Maine Sea Grant: Evaluate performance of length-structured models for the assessment of northern shrimp and Atlantic herring in the Gulf of Maine (Chen) $143,778 (2014-2017)
67) NSF EPSCoR SSI Program: Understanding Ecological, Social, and Economic Aspects of Bycatch and Building Stakeholder Alliances in the Gulf of Maine Lobster Fishery (Chen and Beitl) $62,117
68) NOAA SK Program: Improving survivability of cusk and Atlantic cod bycatch discarded in the Gulf of Maine lobster trap fishery. (Chen) $226,542 (2014-2016)
69) NOAA: The Eastern Gulf of Maine sentinel jigging/longline survey/fishery in 2014 (Chen) $213,027/year x 5 years = $1,065,135 (2014-2019)
70) Penobscot East Resource Center: Sentinel Fish Survey in Eastern Gulf of Maine (Chen) $31,000 (2015-16)
71) Marine Department of Marine Resources: Optimization of lobster sea sampling program (Chen) $25,000 (2015 - 2016)
72) NOAA/Maine Department of Marine Resources: Scallop survey in federal waters of Gulf of Maine (Chen) $75,000 (2016 - 2018)
73) NOAA FATE Program: Incorporating Environmental and Ecological Variables to Improve Stock Assessments: An Application to Northern Shrimp in the Gulf of Maine (Chen and Richards) $174,404 (2015-2017)
74) NOAA SK Program: Development of an ecologically and economically viable northern shrimp (*Pandalus borealis)* fishery in a changing Gulf of Maine (Chen and Evans) $291,419 (2016-2018)
75) Marine Department of Marine Resources: Lobster stock assessment and monitoring program (Chen) $25,000 (2016 - 2017)


*Most of my funding from the Maine DMR supports data analysis, modeling, and stock assessment. The fieldwork components for some of the cooperative projects between my lab and*

*DMR scientists listed above are conducted by the Maine Department of Marine Resources (e.g., their inshore trawl survey, sea urchin survey, sea cucumber survey, marine worm survey, lobster port and sea sampling programs, etc.) with the involvement of myself and my students in survey design and field implementation, and their costs were not included in my project funding listed above.*

## GRADUATE STUDENTS COMPLETED THEIR PROGRAMS UNDER MY ADVISE/CO-ADVISE

Yingming Zhao (MS, started Sept. 1998, co-advised with Dr. Joe Brown) " Impacts of cod egg sizes on survival and growth rates of larvae" (at the Memorial University of Newfoundland, *completed May 2001, received PhD at U of Toronto in 2005)*

Harshana Rajakaruna (MS, started Sept. 1999, co-advised with Dr. Paul Snelgrove) "Impacts of the quality of fisheries data on fish stock assessment and fisheries management" (at the Memorial University of Newfoundland, *completed May 2003, currently Natural Resources scientist in Sri Lanka*)

Robert Grabowski (MS in Marine Biology, started Sept. 2001). Population dynamics and spatial analysis of the Maine green sea urchin (*Strongylocentrotus droebachiensis*) fishery (at the University of Maine, *completed in May 2003, currently PhD student at the Southern Florida University)*

Kevin Scheirer (MS in Marine Policy, started January 2001). Spatial dynamics of lobster fishery and its impacts on the fishery management in Maine (at University of Maine, completed in Dec. 2003 currently Researcher at GOM Research Institute)

Yan Jiao (Ph.D. in Marine Biology, started Sept. 2000) Fish Population Dynamics modeling" (at the Memorial University of Newfoundland, completed in Jan. 2004, currently Associate Professor at Virginia Tech)

Yuying Zhang (MS in Oceanography, started Sept. 2003). Modeling the lobster ecosystem in the Gulf of Maine, completed in Aug. 2005)

Sheril Kirshenbaum (Dual MS degrees in Marine Biology and Marine Policy, January 2003 – Nov. 2005). Assessment and management of sea cucumber fishery in Maine, Knauss Fellow ( Legislative Intern in the US Senate) Currently Associate in Research for Ocean and Coastal Policy, Nicholas Institute for Environmental Policy Solutions, Duke University.

Kate Jones (Dual MS degrees in Marine Biology and Marine Policy, Sept. 2002 - Dec. 2005). Sea urchin stock assessment and management in the State of Maine (Research associate at Memorial University of Newfoundland, Canada)

Kathleen Reardon (Dual MS degrees in Marine Biology and Marine Policy, January 2003 – April 2006). Assessment, monitoring and management of Jonah crab in Maine (currently Marine Resource Scientist at the Maine Department of Marine Resources)

Adrian Jordaan (PhD in Marine Biology, January 2003). Aquatic ecology and community in the

Acadia National Park, Maine (Completed in Aug. 2006; currently Assistant Professor at UMASS Amherst)

Darcie Couture  (Dual MS candidate in Marine Biology and Marine Policy, Sept. 2002). The management and dynamics of the Maine lobster fishery (started her current position in April 2005 as the Director of Environment Monitoring Section in the Maine Department of Marine Resources)

Yunkai Li (Visiting PhD student from the East China Normal University supported by the Ministry of Education of China and University of Maine, 2006-2007), Modeling ecosystem of East China Sea.

Mike Errigo (PhD student in Marine Biology, Sept. 2004 – Nov. 2008). Structured errors in modelling fisheries population dynamics and stock assessment. (with the National Sea Grant-NOAA Fish Population Dynamics Fellowship)

Danielle Brzezinski (Dual MS candidate in Marine Biology and Marine Policy, Sept. 2006- Sept. 2009). Groundfish and scallop spatial and temporal dynamics and their management implications. Knauss Fellow (Legislative Intern in the US Senate).

Yi-Jay Chang (visiting PhD student from the National Taiwan University, supported by National Research Council of Taiwan), Lobster stock assessment and management 2007-2008.

Yiping Ying (visiting PhD student from Ocean University of China, supported by NSF of China), Impacts of fish stock spatial structure on fisheries assessment and management 2009-2010.

Yuying Zhang (PhD in the UMaine Interdisciplinary PhD program, started Sept. 2005 – May 2010). Lobster biological reference points. *Currently is a tenure-track Assistant Professor at Florida International University*)

Cinamon Moffett (Dual MS program in Marine Biology and Policy, Sept. 2008), northern shrimp fisheries. Completed May 2011.

Charlene Bergeron (MS in Marine Biology, Sept. 2007, co-advisor), Estimating growth of lobster from meta-analysis of tagging data. Completed Nov. 2011.

Marissa McMahon (MS in Marine Biology, Jan. 2009, co-advisor) Lobster growth and environmental variables.  Completed Dec. 2011.

Alia Al-Humaidhi (Dual MS program in Marine Biology and Policy, Sept. 2007). Spatial dynamics of groundfish fisheries in the Gulf of Maine. Completed Feb. 2012.

Bilin Liu (visiting PhD student from Shanghai Ocean University) 2012

Xuefang Wang (visiting PhD student from Shanghai Ocean University) 2012

Stefan Zahnd (Dual MS program in Marine Biology and Marine Policy, Sept. 2012) Lobster stock assessment.

Anna Henry (Dual MS program in Marine Biology and Policy, Sept. 2010).  Developing a sentinel fishery in the eastern Gulf of Maine. Completed 2013.

Keri Stepanek (MS candidate in Marine Biology, started Sept. 2006) Inshore groundfish trawl survey in the Gulf of Maine.  (arrangement has been made for Keri to keep her fulltime employment as a Marine Resource Scientist with the Maine Department of Marine Resources.

Timothy Bennett (MS in Marine Biology, Sept. 2010-). Wolffish population dynamics.

Michael Kersula (Dual MS program n Marine Biology and Policy, Jan. 2011- May 2014). Groundfish in Gulf of Maine.

Julia Beaty (Dual MS program in Marine Biology and Policy, Sept. 2011- May 2014). Atlantic Halibut fishery assessment and management

Sam Truesdell (PhD in Marine Biology and MS in Marine Policy, Jan. 2009 – Aug. 2014). Spatial dynamics in stock assessment for scallop fisheries (with the National Sea Grant-NOAA Fish Population Dynamics Fellowship)

Jui-han Chang (PhD in the UMaine interdisciplinary PhD program, Sept. 2007 – May 2015). Lobster fisheries in the Gulf of Maine

Jie Cao (PhD in Marine Biology Sept. 2010- May 2015). Evaluate lobster monitoring programs in Maine.

James Becker (MS in Marine Biology, Jan. 2014- May 2016). Temporal variability in life history traits for Atlantic herring in the Gulf of Maine.

*Errigo, Zhang and Brzezinski are recipients of the UMaine Provost Fellowship (the most prestigious scholarship for incoming graduate students at the UMaine) in 2004, 2005, and 2006, respectively.*

I also co-advised students as an adjunct professor at the East China Normal University in Shanghai (3 PhDs completed 2003-2005), Shanghai Ocean University (8 PhDs completed and 3 ongoing since 2007), and Ocean University of China (1 ongoing since 2016- )

## GRADUATE STUDENTS CURRENTLY IN MY UMAINE LAB

Derek Olson (Dual MS program in Marine Biology and Policy), Sampling metapopulations (expected completion Dec. 2016).

Carl Wilson (PhD candidate in the UMaine interdisciplinary PhD program). Lobster fisheries.

Lisha Guan (PhD candidate in Marine Biology, Sept. 2012-). Atlantic cod stock structure and stock assessment (co-advised with Dr. Jim Wilson) (expected completion Dec. 2016).

Jocelyn Runnebaum (PhD candidate in Marine Biology, Sept. 2012), Cusk bycatch in Maine lobster fisheries (expected completion May 2017).

Kisei Tanaka (PhD candidate in Ecology and Environmental Sciences, Sept. 2013-) Climate changes and fish habitat modeling (NSF IGERT Fellow)

Kevin Staples (Dual MS student in Marine Biology and Policy, Sept. 2013-) Spatial and temporal variability of lobster molting (expected completion May 2017).

Alexa Dayton (PhD student in interdisciplinary Program, Sept. 2013-) Lobster fishery and market.

Bai Li (PhD student in Marine Biology, Jan. 2014-) Evaluate performance of lobster management regulations using computer simulations

Mike Torre (PhD student in Marine Biology, Sept. 2014-), Scallop fishery and survey (NSF IGERT Fellow)

Robert Boenish (PhD student in Marine Biology, Sept. 2014-), Atlantic cod discard mortality in lobster fishery.

Mattie Rodrigue (MS student in Marine Biology, Sept. 2014-), Groundfish jigging and longline

sentinel survey in northern Gulf of Maine

Katherine Thompson (PhD student in Marine Biology, Jan. 2015-) Northern shrimp population dynamics under climate change.

Mackenzie Mazur (PhD student in Marine Biology, Sept. 2015 - )  Evaluating lobster fishing efforts

Max Ritchie (MS student in Marine Biology, Sept. 2015 - ) Habitat modeling for green sea urchin and northern shrimp in Maine. (expected completion May 2017)

Emily Nocito (MS student in dual MS degrees in marine biology and policy, Sept. 2016) International fisheries management

Ashley Charleson (MS student in dual MS degrees in marine biology and policy, Sept. 2016). Northern shrimp fishery in the Gulf of Maine

All my current graduate students are involved in one or more of my research projects, which become the topics of their research theses. My graduate students are funded by my research grants and scholarships.

## POSTDOCTORAL AND VISITING RESEARCHERS IN MY LAB.
**I have advised the following Postdoctoral Research Associates and they were all fully funded by my research grants:**
- *Dr. Minoru Kanaiwa* (2002-2005, Green sea urchin and American lobster stock assessment): Dr. Kanaiwa become a tenure-track faculty member in Oct. 2005 at the Tokyo University of Agriculture in Japan
- *Dr. Thomas Windholz* (2002, Spatial statistics for the green sea urchin fishery): Dr. Windholz become a faculty member of the Idaho State University
- *Dr. Ying Xue* (2005-2006, Trophic dynamics of the GOM lobster ecosystem): Dr. Xue becomes a faculty member at the Ocean University of China, Qingdao, China.
- *Dr. Shiquan Tian* (2007 – 2008, 2010, fisheries stock assessment and management):  Dr. Tian becomes a new faculty member of the Shanghai Fisheries University.
- *Yong Liu (2008 - present):* Visiting scientist from the East China Fisheries Research Institute, Fisheries stock assessment.
- *Jiangfeng Zhu (Jan.* 2009 - ): Visiting scientist from the Shanghai Ocean University: fisheries stock assessment.
- *Dr. Murat Toplu* (2010): Visiting scientist from Turkish Department of Fisheries
- *Dr. Nuri Celik* (2010): Visiting scientist from Turkish Department of Fisheries.
- *Dr. Wenjing Guan* (2011 - 2013): Postdoctoral Research Associate
- *Dr. Jie Cao (June 2015 -);* Postdoctoral Research Associate
- *Dr.* Jintao Wang (Sept. 2015 - ): Postdoctoral Research Associate
- *Dr. XueHui Wang (Sept.* 2015 – Aug. 2016): Visiting Scientist from South China Sea Fisheries Research Institute
- *Dr.* Jie Cao (June 2015 – present): Postdoctoral Research Associate

## UNDERGRADUATE STUDENT ADVISING (not updated after 2009: usually I advised 2-4 undergraduate students for their capstone projects per year)
*The following students have completed their capstone/honor thesis research projects in my lab during the last 3 years:*
- *Roberto Bongioanni (sea urchin fishery),*

- *John Speirs (Coastal Fisheries ecology),*
- *Glenn Chamberlain (American lobster fishery),*
- *Lindsay Hamlin (coastal fish community), and*
- *Chelsey Cronan (American lobster fishery)*
- *Mahima Jaini (Hornor thesis, Maine green sea urchin biology and management policy)*
- *Jeremy Bander (Honor thesis, Shark habitat modelling in Florida)*
- 

**I am also the academic advisor of 3-5 undergraduate students per year.**

**Research Assistants and Research Associates who worked in my lab (paid from my research grants) (semesters and years indicated are the time when they work in my lab) (stop updating since 2012)**

- Ms. Nichole Stenberg (undergraduate in Marine Biology, Spring 2002), part-time RA
- Ms. Kathryn Wisz (undergraduate in Marine Biology, Spring and Fall 2002, 2003), part-time RA
- Ms. Ellen Fortado (undergraduate in Marine Biology, Fall 2002), Part-time RA
- Mr. Adrian Jordaan (Graduate student in Marine Biology, Spring and Fall 2002)
- Ms. Xiemen Fang (Research Associate, 2002)
- Ms. Xiaowei Tian (Research Assistant, 2002)
- Mr. Bo Shi (High school student, summer 2002, attended MIT since Fall 2002)
- Ms. Erica He (High school student, summer 2002, attended Brown University since 2004)
- Ms. Liying Yan (Ph.D Candidate in computer sciences at University of Maine, summer 2003)
- Mr. Jared Carter (undergraduate student in Politics and Marine Biology, Fall 2003, Spring 2004) part-time RA
- Ms. Lindsay Hamlin (Student Research Assistant, 2004, 2005)
- Ms. Xiaoyan Liu (Student Research assistant, 2008-2010)
- Caitlin Losi (Lab Research Assistant, 2010- 2012)
- Amy Sherman, Sarah Conlin, and Bai Li (Lab Research Assistant, 2012)

# PUBLICATIONS:
**FULL PEER-REVIEWED JOURNAL PAPERS / BOOK CHAPTERS (names with * are my students or postdoc).**

(1) **Chen, Y**., D. A. Jackson, H. H. Harvey. 1992. A comparison of von Bertalanffy and polynomial functions in modelling fish growth data. Canadian Journal of Fisheries and Aquatic Sciences 49:1228-1235.

(2) Paloheimo, J. E. and **Y. Chen.** 1993. Estimation of effective effort from catch-at-age data. Canadian Journal of Fisheries and Aquatic Sciences 50:2421-2428.

(3) **Chen, Y**., D. A. Jackson, and J. E. Paloheimo. 1994. Robust regression approach to analyzing fisheries data. Canadian Journal of Fisheries and Aquatic Sciences 51:1420-1429.

(4) **Chen, Y.** and J. E. Paloheimo. 1994. Robust regression approach to estimating fish

mortality rates with a cohort-based model. Transactions of the American Fisheries Society 123:2421-2428.

**(5) Chen, Y.** and J. E. Paloheimo. 1994. Estimation of fish length and age at 50% maturity using a logistic type model. Aquatic Sciences 56:206-219.

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**(7) Chen, Y.** and J. E. Paloheimo. 1995. A robust regression analysis of recruitment in fisheries. Canadian Journal of Fisheries and Aquatic Sciences 52: 993-1006.

**(8) Chen, Y.** and H. H. Harvey. 1995. Growth, abundance, and food supply of white sucker, *Catostomus commersoni*. Transactions of the American Fisheries Society 124:262-271.

**(9) Chen, Y**. and D. A. Jackson. 1995. Robust estimation of mean and variance in fisheries. Transactions of the American Fisheries Society 124:401-412.

**(10) Chen, Y.** 1996. A Monte Carlo study on impacts of the size of subsample catch on estimation of fish stock parameters. Fisheries Research 26:207-223.

**(11)** Paloheimo, J. E. and **Y. Chen.** 1996. Estimating fishing mortality and cohort sizes. Canadian Journal of Fisheries and Aquatic Sciences 53:1572-1579.

**(12) Chen, Y.,** G. Liggins, K. Graham, and S. Kenelley. 1997. Modelling length-dependent offshore distribution of redfish, *Centroberyx affinis*. Fisheries Research 29:39-54.

**(13) Chen, Y.** and G. Gordon. 1997. Assessing at-sea discarding using a length-structured yield-per-recruit model. Fisheries Research 30:43-55.

**(14)** Andrew, N. and **Y. Chen**. 1997. Optimal sampling for estimating the size structure and mean size of individuals caught in an abalone fishery. Fishery Bulletin 95:403-413.

**(15) Chen, Y.** 1997. A comparison study of age- and length-structured yield-per-recruit models. Aquatic Living Resources 10:271-280.

**(16) Chen, Y.** and N. Andrew. 1998. Parameter estimation in modelling the dynamics of fish stock biomass: are currently used observation-error estimators reliable? Canadian Journal of Fisheries and Aquatic Sciences 55:749-760.

**(17) Chen, Y.,** G. Liggins, and R. West. 1998. A yield-per-recruit model for sequential fisheries and its application in evaluating the management strategy of changing incidental inshore fishing mortality. Aquatic Sciences 60:130-144.

**(18) Chen, Y**. and J. E. Paloheimo. 1998. Can a more realistic model error structure improve parameter estimation in modelling the dynamics of fish populations? Fisheries Research 38:9-17.

**(19) Chen, Y.** and S. Montgomery. 1999. Modelling the dynamics of rock lobster, *Jasus verreauxi*, stock in New South Wales, Australia. Fishery Bulletin 97:25-38.

**(20) Chen, Y.** and S. Kennelly. 1999. Growth of spanner crab, *Ranina ranina*, off the east coast of Australia. Freshwater and Marine Research 50:319-325.

**(21) Chen, Y**. and *G. S. Mello. 1999. Growth and maturation of cod (*Gadus morhua*) of different year classes in NAFO Subdivision 3Ps in Northwest Atlantic. Fisheries Research 42:87-101

**(22) Chen, Y.** and D. Fournier. 1999. Impacts of atypical data on Bayesian inference and robust Bayesian approach in fisheries. <u>Canadian Journal of Fisheries and Aquatic Sciences</u> 56:1525-1533.

**(23) Chen, Y.** and H. H. Harvey. 1999. Spatial structuring of length-at-age of the benthivorous white sucker (*Catostomus commersoni*) in relation to environmental variables. <u>Aquatic Living Resources</u> 12:351-362.

**(24) Chen, Y.** and D. A. Jackson. 2000. An empirical study on estimators for linear regression analyses in fisheries and ecology. <u>Fisheries Research</u> 49:193-206

**(25) Chen, Y**., P. Breen, and N. Andrew. 2000. Impacts of outliers and mis-specification of priors on Bayesian fisheries stock assessment. <u>Canadian Journal of Fisheries and Aquatic Sciences 57: 2293-2305</u>

**(26)** *Zhao, Y., **Y. Chen**, and J. Brown. 2001. Egg size, hatching temperature effects on size of Atlantic cod (*Gadus morhua*) larvae. <u>Journal of Fish Biology</u> 59:569-581.

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**(28) Chen, Y**. and C. Wilson. 2002. A simulation study to evaluate uncertainty associated with biological reference point F10% for the American lobster (*Homarus americanus*) fishery in the Gulf of Maine and some possible management implications. <u>Canadian Journal of Fisheries and Aquatic Sciences</u> 59: 1394-1403.

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**(35) Chen, Y.** and Y. Ye. 2003. Evaluation of changes in Kuwait fishery after the 1991 Gulf war. <u>Aquatic Sciences</u> 65:167-180.

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**(37)** Jackson, D. A. and **Y. Chen**. 2003. Robust principal component analysis of ecological data. <u>Environmetrics</u> 14:1-11.

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**(72)** \*Liu, Y., **Y. Chen**, J. Cheng. 2009. A comparative study of optimization methods and conventional methods for sampling design in fishery-independent surveys. ICES Journal of Marine Sciences 66: doi:10.1093/**ices**jms/fsp157

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**(16) Chen, Y.** 2000. Impacts of quantity and quality of fisheries data on stock assessment. 3rd World Fisheries Congress, Beijing, China. October 31 – November 3, 2000

**(17) Chen, Y**. 2000. Quality of fisheries data and fisheries stock assessment. Fisheries Stock Assessment Symposium, the University of Bergen, Bergen, Norway. December 4-6, 2000.

**(18)** Y. Zhao, **Y. Chen**, and J. A. Brown. 2000. Impacts of egg size and hatching temperature on size, survival and growth of Atlantic cod larvae (*Gadus morhua*). 3rd World Fisheries Congress, Beijing, China. October 31 – November 3, 2000

**(19) Chen, Y**. 2001. Quantity of fisheries data and uncertainty in stock assessment. <u>Canadian Conference for Fisheries Research Annual Meeting, Toronot, January 4-6, 2001.</u>

**(20) Chen, Y.** and M. Hunter**.** 2001. Application of robust Bayesian methods in fisheries stock assessment. Invited session "Application of Bayes Methodology in Statistical Consulting", American Statistical Association Annual Meeting, Atlanta, August 2001, Abstracts 2001:54.

**(21)** Grabowski, R.C., **Y. Chen**, R. Russell, and M. Hunter. 2002. Analysis of the spatial distribution of green sea urchin along the coast of Maine. American Fisheries Society

132<sup>th</sup> Annual Meeting, Baltimore, Maryland, Aug. 19, 2002

**(22)** Scheirer, K, **Y. Chen**, and C. Wilson. 2002. Comparing two sampling programs for the Maine lobster fishery. American Fisheries Society 132<sup>th</sup> Annual Meeting, Baltimore, Maryland, Aug. 20, 2002

**(23)** Yan, J., **Y. Chen**, and J. Wroblewski. 2002. Impacts of stock mixing on the estimation of fish growth. American Fisheries Society 132<sup>th</sup> Annual Meeting, Baltimore, Maryland, Aug. 21, 2002

**(24) Chen, Y**. 2002. Robust statistical methods: how can we develop and use them for analyzing fisheries data? American Fisheries Society 132<sup>th</sup> Annual Meeting, Baltimore, Maryland, Aug. 19, 2002

**(25)** Zhao, Y., **Y. Chen**, and J. Brown. 2002. Size-dependent survival and growth of Atlantic cod  (*Gadus morhua*) larvae under different feeding conditions. American Fisheries Society 132<sup>th</sup> Annual Meeting, Baltimore, Maryland, Aug. 21, 2002

**(26)** Grabowski, R., **Y. Chen**, and T. Windholz. 2002. Developing a computer simulation program to determine optimal sampling strategies: a case study of the Maine sea urchin fishery. 2nd International Symposium on GIS/Spatial Analyses in Fishery and Aquatic Sciences. Brighton, England. 3-6 September,2002.

**(27) Chen, Y**. 2002**.** Spatial dynamics of the lobster fishery and oil spills in the Gulf of Maine, a risk analysis of oil spills on the lobster fishery. Darling Marine Center, September 9, 2002. NOAA Oil Spills Training Workshop.

**(28) Chen, Y.**, M. Kanaiwa, and C. Wilson. 2003. Developing an individual-based stock assessment framework using random Bernoulli trials. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(29**) *Kanaiwa, M**.**, **Y. Chen**, and C. Wilson. 2003. Developing a Bayesian stock assessment framework for the American lobster fishery.  American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(30)** *Jones, K., **Y. Chen**, R. Russell, and M. Hunter. 2003. Developing an abundance index for the Maine sea urchin stock. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(31)** *Jiao, Y., **Y. Chen**, and J. Wroblewski. 2003. Evaluating the northern cod (Gadus morhua) fishery status using a composite risk assessment method. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(32) Chen, Y**., S. Sherman, C. Wilson, and J. Sowles. 2004. An evaluation of consistency of two fishery-independent survey programs in indexing lobster abundance in Maine. The 7<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

**(33) Chen, Y**., *Kanaiwa, M**.**, and C. Wilson. 2004. Evaluating a Bayesian stock assessment framework for the American lobster fishery. The 7<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

**(34)** *Couture, D. and **Y. Chen**. 2004. A mail survey program for better understanding the dynamics of the American lobster fishery in Maine. The 7<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

**(35)** *Sherier, K., C. Wilson, and **Y. Chen**. 2004. Spatial dynamics of the lobster fishery in Maine, USA. The 7<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

**(36)** Incze, L, H. Xue, N. Pettigret, **Y. Chen**, R. Steneck, C. Wilson, P. Lawton, and D. Greenberg. 2004. Data assimilation and modeling of source-sink relationships and fishery production of *Homarus Americanus* in the Gulf of Maine. The 7<sup>th</sup> International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb.

9 – 13, 2004.

**(37)** *Reardon, K. and **Y. Chen**. 2004. Estimation of key fishery parameters for managing Jonah crab fishery in Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

**(38)** *Jones, K. and **Y. Chen**. 2004. A comparative study of a population model and a spatial tatistics model in assessing the green sea urchin stock in Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

**(39)** *Kirshenbaum, S. and **Y. Chen**. 2004. A fecundity study of the Maine sea cucumber population. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

**(40)** *Zhang, Y. and **Y. Chen.** 2004. A study of the lobster ecosystem in the Gulf of Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

**(41)** **Chen, Y.** and P. He. 2005. Estimating and comparing gear selectivity (fishing gear symposium). 135th American Fisheries Society Annual meeting, Anchorage, Alaska, Sept. 2005.

**(42)** *Jones, K. and **Y. Chen**. 2005. Identifying key ecological variables for the green sea urchin population in Maine. 135th American Fisheries Society Annual meeting, Anchorage, Alaska, Sept. 2005.

**(43)** *Reardon, K., C. Wilson, R. Russell and **Y. Chen**. 2005. An experimental video survey for Jonah crabs in the Gulf of Maine. 135th American Fisheries Society Annual meeting, Anchorage, Alaska, Sept. 2005.

**(44)** *Jordaan, A., **Y. Chen**, and D. Townsend. 2005. Developing diagnostic tools for ecosystem-based fisheries management. 135th American Fisheries Society Annual meeting, Anchorage, Alaska, Sept. 2005.

**(45)** *Errigo, M. and **Y. Chen**. 2006. Evaluating normal and fat-tailed likelihood functions in Bayesian stock assessment. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006

**(46)** *Zhang, Y. and **Y. Chen**. 2006. Developing and evaluating biological reference points for the American lobster fishery management. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006

**(47)** *Zhang, Y. and **Y. Chen**. 2006. Ecological modeling of American lobster population in the Gulf of Maine. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006.

**(48)** *Brzezinski, D. J. Wilson, and **Y. Chen**. 2007. Having a Pee in the Sea- Voluntary participation in the New England Fishery Management Council meetings. 137th American Fisheries Society Annual Meeting, San Francisco, CA. Sept. 2-6, 2007.

**(49)** *Errigo, M., M. Kanaiwa, and **Y. Chen**. 2007. The effects of random errors and outliers on the performance of a Bayesian size-structured stock assessment model. 137th American Fisheries Society Annual Meeting, San Francisco, CA. Sept. 2-6, 2007.

**(50)** *Zhang, Y., **Y. Chen**, and M. Kanaiwa. 2007. Developing and evaluating biological reference points for the American lobster fishery management. 137th American Fisheries Society Annual Meeting, San Francisco, CA. Sept. 2-6, 2007.

**(51)** *Brzezinski, D., **Y. Chen,** and J. Wilson. 2007. Analysis of the habitat effects of scallop dredging on Georges Bank using video photography data. 137th American Fisheries Society Annual Meeting, San Francisco, CA. Sept. 2-6, 2007.

**(52)** *Stepanek, K., S. Sherman, and **Y. Chen**. An analysis of groundfish abundance and

distribution in the coastal Gulf of Maine. 137th American Fisheries Society Annual Meeting, San Francisco, CA. Sept. 2-6, 2007.

(53) **Chen, Y**., M. Kanaiwa, and C. Wilson. 2007. Develop and evaluate a seasonal, sex-specific size-structured stock assessment model for the American lobster. 8th International Conference and Workshop on Lobster Biology and Management. Charlottetown, PEI, Canada. Sept. 23 – 28, 2007.

(54) **Chen, Y.**, Mike Errigo, et al. 2008. Evaluating stock assessment model for the GOM stock assessment. National Shellfish Association Annual Meeting, Rhode Island April 7-10, 2008.


**<u>My students and I have co-authored 8 abstracts in national and international meetings in 2008, and 10 abstracts in national and international meetings in 2009. Because of length of the CV, they are not listed here.</u>**


**(f) PROFESSIONAL PRESENTATIONS (***an incomplete list***, stop updating after 2008, authors with * are my students or postdocs)**

(1) **Chen, Y.** and H. H. Harvey. Growth analysis of the white suckers from nineteen Ontario lakes. <u>American Fisheries Society Annual Meeting</u>, Pittsburgh, PA., U.S.A., August 1990.

(2) **Chen, Y.**, D. A. Jackson, and H. H. Harvey. Comparison of mathematical models of fish growth. <u>Canadian Conference for Fisheries Research Annual Meeting</u>, Gulph, Ontario, January 1991.

(3) **Chen, Y**. and J. E. Paloheimo. Robust regression analysis of fisheries data. <u>The 54th Midwest Fish & Wildlife Conference</u>, Toronto, Canada, December 1992.

(4) **Chen, Y**. and H. H. Harvey. Growth of white sucker, <u>Catostomus</u> <u>commersoni</u>, in relation to food supply and population density. <u>American Fisheries Society Annual Meeting</u>, Portland, OR., U.S.A., August 1993.

(5) Harvey, H. H., E. A. Trippel, and **Y. Chen**. The effects of reduced intraspecific competition on a low-density white sucker population. <u>American Fisheries Society Annual Meeting</u>, Pittsburgh, PA., U. S. A., August 1990.

(6) Jackson, D. A. and **Y. Chen**. Robust multivariate analysis: principal components analysis with outliers. International Environmetrics Society, Burlington, Ontario, August 1994.

(7) Harvey, H. H., D. A. Jackson, and **Y. Chen**. Dynamics of a white sucker, <u>Catostomus</u> <u>commersoni</u>, population with a gradual reduction from high to low density. <u>American Fisheries Society Annual Meeting</u>, Halifax, August 1994.

(8) **Chen, Y.**, G. Liggins, and K. Graham. 1995. Modelling length-dependent offshore distribution of redfish, <u>Centroberyx</u> <u>affinis</u>. Annual Conference of the Australian Society for Fish Biology, University of Sydney, NSW, Australia, July 1, 1995.

(9) **Chen, Y.** 1995. Identification and interpretation of outliers in analyzing fisheries data. Seminar Series in NSW Fisheries Research Institute, Cronulla, NSW. August 17, 1995.

(10) **Chen, Y.** 1995. Parameter estimation and data analysis in fisheries. Chesapeake

Biological Laboratory, Center for Environmental and Estuarine Studies, University of Maryland, U. S. A. November 23, 1995.

**(11) Chen, Y.** 1996. Stock assessment in New South Wales - a population dynamicist's perspective. Seminar Series in NSW Fisheries Research Institute, Cronulla, NSW. May 23, 1996.

**(12) Chen, Y.** 1996. The influence of error on modelling the dynamics of fish population. Fisheries and Marine Institute, Memorial University of Newfoundland, St. John's, Newfoundland, Canada, November 24, 1996.

**(13) Chen, Y**. and L. Mello. 1999. Developing an overall indicator for monitoring temporal variation in fish size at age and its application to cod (*Gadus morhua*) in the Northwest Atlantic, NAFO subdivision 3Ps. Working paper 99/11. DFO Newfoundland Region Stock assessment meeting. Feb. 15-19. St. John's, NF.

**(14) Chen, Y.** 1999. Bayesian inference in ecology. Ecology Seminar Series, Department of Zoology, University of Toronto, Toronto, March 29, 1999

**(15) Chen, Y.** 1999. Impacts of atypical data on natural resources modelling. The World Conference for Natural Resources Modelling, June 22-25, Halifax, NS.

**(16) Chen, Y.** 1999. Uncertainties in fish stock assessment. Darling Marine Center, University of Maine, August 16, 1999.

**(17) Chen, Y.** 1999. Impacts of atypical data on Bayesian stock assessment and robust Bayesian methods. American Fisheries Society 129th Annual Meeting, Charlotte, NC, September 2, 1999.

**(18) Chen, Y.** 1999. Growth and maturation of cod in NAFO subdivision 3Ps. American Fisheries Society 129th Annual Meeting, Charlotte, NC, September 1, 1999

**(19)** *Rajakaruna, H. and **Y. Chen.** 1999. Impacts of at-sea discarding on virtual population analysis. American Fisheries Society 129th Annual Meeting, Charlotte, NC, September 1, 1999

**(20)** *Rajakaruna, H. and **Y. Chen**. 1999. Impacts of excluding discarded catch on VPA in cod stock assessment in Newfoundland. Regional stock assessment meeting for 3Ps cod. St. John's, NF, October 19, 1999.

**(21) Chen, Y.** 1999. Impacts of atypical data on natural resources modelling. The World Conference for Natural Resources Modelling, June 22-25, Halifax, NS.

**(22) Chen, Y**. 1999. Bayesian inference in ecology. Ecology Seminar Series, Zoology, University of Toronto March 1999.

**(23) Chen**, **Y**. 1999. Developing an overall indicator for monitoring temporal variation in fish size at age and its application to cod in the Northwest Atlantic, NAFO subdivision 3Ps. Canadian Stock Assessment Regional meeting, Feb., 1999.

**(24)** Chen, Y. 1999. Uncertainties in fisheries stock assessment. Darling Marine Center, University of Maine. August 1999.

**(25)** *Rajakaruna, H., and **Y. Chen**. 1999. Impacts of excluding discarded catch on VPA in cod stock assessment in Newfoundland. Canadian Dept. of Fisheries and Oceans Regional Stock assessment for 3Ps cod, St. John's, Newfoundland, October 1999.

**(26) Chen, Y.** 1999. Impacts of atypical data on Bayesian stock assessment and robust Bayesian methods. American Fisheries Society 129th Annual Meeting, Charlotte, NC,

September 2, 1999.

**(27) Chen, Y.** 1999. Growth and maturation of cod in NAFO subdivision 3Ps. American Fisheries Society 129th Annual Meeting, Charlotte, NC, September 1, 1999

**(28)** Rajakaruna, H. and **Y. Chen.** 1999. Impacts of at-sea discarding on virtual population analysis. American Fisheries Society 129th Annual Meeting, Charlotte, NC, September 1, 1999

**(29) Chen, Y.** 2000. Impacts of quantity and quality of fisheries data on stock assessment. 3rd World Fisheries Congress, Beijing, China. October 31 – November 3, 2000

**(30) Chen, Y**. 2000. Quality of fisheries data and fisheries stock assessment. Fisheries Stock Assessment Symposium, the University of Bergen, Bergen, Norway. December 4-6, 2000.

**(31)** *Zhao, Y., **Y. Chen**, and J. A. Brown. 2000. Impacts of egg size and hatching temperature on size, survival and growth of Atlantic cod larvae (*Gadus morhua*). 3rd World Fisheries Congress, Beijing, China. October 31 – November 3, 2000

**(32) Chen, Y**. 2001. Quantity of fisheries data and uncertainty in stock assessment. Canadian Conference for Fisheries Research Annual Meeting, Toronot, January 4-6, 2001.

**(33) Chen, Y.** 2001. Assessment of the Maine sea urchin stock. Sea urchin summit, Ellsworth, ME, April 2001.

**(34) Chen, Y.** 2001. Developing alternative stock assessment for the American lobster. Lobster Institute Board of Advisors Meeting, Orono, ME, May 2001.

**(35) Chen, Y.** 2001. A preliminary assessment of Maine sea urchin stock. School of Marine Sciences Spring Seminar Series, University of Maine, Orono, ME, May 2001.

**(36) Chen, Y**. and C. Wilson. 2001. Evaluating F10%. Lobster Model Development Sub-committee. Portsmouth, NH, July 2001

**(37) Chen, Y.** 2001. Sea Urchin Zone Council meeting. Maine Sea Urchin Stock Assessment. Orland, ME, July 2001

**(38) Chen, Y.** and M. Hunter**.** 2001. Application of robust Bayesian methods in fisheries stock assessment. Invited session "Application of Bayes Methodology in Statistical Consulting", American Statistical Association Annual Meeting, Atlanta, August 2001.

**(39) Chen, Y.** 2001. Fisheries Stock Assessment. Portland, Gulf of Maine Aquarium, Dec. 2001

**(40) Chen, Y.** 2001. Developing, evaluating, and refining stock assessment framework for the Maine sea urchin fishery. Orland, ME, Maine Sea Urchin Zone Council, Dec. 2001.

**(41) Chen, Y.** 2002. Uncertainty in biological reference points for the American lobster fishery. Maine Fishermen's Forum, Rockland, ME, April 2002.

**(42) Chen, Y.** 2002. Fisheries stock assessment and management in the United States. East China Normal University, Shanghai, China. May 2002

**(43) Chen, Y.** 2002. High educations in Australia, Canada, and US. East China Normal University, Shanghai, China, May 2002.

**(44)** *Grabowski, R.C., **Y. Chen**, R. Russell, and M. Hunter. 2002. Analysis of the spatial distribution of green sea urchin along the coast of Maine. American Fisheries Society 132th Annual Meeting, Baltimore, Maryland, Aug. 19, 2002

**(45)** *Scheirer, K, **Y. Chen**, and C. Wilson. 2002. Comparing two sampling programs for

the Maine lobster fishery. American Fisheries Society 132th Annual Meeting, Baltimore, Maryland, Aug. 20, 2002

**(46)** *Yan, J., **Y. Chen**, and J. Wroblewski. 2002. Impacts of stock mixing on the estimation of fish growth. American Fisheries Society 132th Annual Meeting, Baltimore, Maryland, Aug. 21, 2002

**(47) Chen, Y**. 2002. Robust statistical methods: how can we develop and use them for analyzing fisheries data? American Fisheries Society 132th Annual Meeting, Baltimore, Maryland, Aug. 19, 2002

**(48)** *Zhao, Y., **Y. Chen**, and J. Brown. 2002. Size-dependent survival and growth of Atlantic cod (*Gadus morhua*) larvae under different feeding conditions. American Fisheries Society 132th Annual Meeting, Baltimore, Maryland, Aug. 21, 2002

**(49)** *Grabowski, R., **Y. Chen**, and T. Windholz. 2002. Developing a computer simulation program to determine optimal sampling strategies: a case study of the Maine sea urchin fishery. 2nd International Symposium on GIS/Spatial Analyses in Fishery and Aquatic Sciences. Brighton, England. 3-6 September, 2002.

**(50) Chen, Y**. 2002**.** Spatial dynamics of the lobster fishery and oil spills in the Gulf of Maine, a risk analysis of oil spills on the lobster fishery. Darling Marine Center, September 9, 2002. NOAA Oil Spills Training Workshop.

**(51) Chen, Y**., *R. Grabowski, and *K. Jones. 2002. Maine sea urchin stock assessment. Maine Sea Urchin Zone Council, Orland, ME. Nov. 14, 2002.

**(52) Chen, Y**. 2002. Uncertainty in fisheries stock assessment. School of Marine Sciences and Technology, University of Massachusetts at Dartmouth, New Bedford, MA, Nov. 21, 2002.

**(53) Chen, Y.** 2002. Stock assessment of the American lobster fishery. Joint seminar by School of Marine Science and Department of Biology, University of Maine at Orono. Dec 13, 2002

**(54) Chen, Y.** and *K. Jones. 2003. Maine sea urchin stock assessment. Maine Fishermen's Forum, March 30, Rockland, ME.

**(55) Chen, Y.** 2003. Modeling spatial dynamics of the Maine lobster fishery and possible implications with oil spills in the Gulf of Maine. Maine Oil Spill Committee (MOSAC) and Maine Sea Grant, May 22, Portland, ME.

**(57) Chen, Y.** 2003. The assessment of the American lobster fishery in the Gulf of Maine. Atlantic State Marine Fisheries Commission Lobster Model Development Committee, New York, NY. Aug. 4-5, 2003.

**(58) Chen, Y.**, *M. Kanaiwa, and C. Wilson. 2003. Developing an individual-based stock assessment framework using random Bernoulli trials. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(59)** *Kanaiwa, M**.**, **Y. Chen**, and C. Wilson. 2003. Developing a Bayesian stock assessment framework for the American lobster fishery. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(60)** *Jones, K., **Y. Chen**, R. Russell, and M. Hunter. 2003. Developing an abundance index for the Maine sea urchin stock. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(61)** *Jiao, Y., **Y. Chen**, and J. Wroblewski. 2003. Evaluating the northern cod (Gadus morhua) fishery status using a composite risk assessment method. American Fisheries Society 133 Annual Meeting, Quebec City, Canada, Aug. 10-14.

**(62) Chen, Y**. and *S. Kirshenbaum. 2003. Assessing the Maine sea cucumber fishery. Northeast Consortium Annual meeting, Portsmouth, NH. Dec. 9, 2003.

**(63) Chen, Y**., S. Sherman, C. Wilson, and J. Sowles. 2004. An evaluation of consistency of two fishery-independent survey programs in indexing lobster abundance in Maine. The

7th International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

(64) **Chen, Y**., *Kanaiwa, M**., and C. Wilson. 2004. Evaluating a Bayesian stock assessment framework for the American lobster fishery. The 7th International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

(65) *Couture, D. and **Y. Chen**. 2004. (Poster) A mail survey program for better understanding the dynamics of the American lobster fishery in Maine. The 7th International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

(66) *Sherier, K., C. Wilson, and **Y. Chen**. 2004. Spatial dynamics of the lobster fishery in Maine, USA. The 7th International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

(67) Incze, L, H. Xue, N. Pettigret, **Y. Chen**, R. Stneck, C. Wilson, P. Lawton, and D. Greenberg. 2004. Data assimilation and modeling of source-sink relationships and fishery production of *Homarus Americanus* in the Gulf of Maine. The 7th International Conference and Workshop on Lobster Biology and Management, Hobart, Australia, Feb. 9 – 13, 2004.

(68) **Chen, Y**. 2004. Uncertainties in fisheries stock assessment. National Taiwan University, Taipei, March 11, 2004.

(69) **Chen, Y**. 2004. Fisheries stock assessment and management in Maine, USA. Taiwan Fisheries Research Institute, Taiwan, March 10, 2004.

(70 **Chen, Y**. 2004. Ecosystem-based management in fisheries. Central China Agricultural University, Wuhan, China, June 4, 2004.

(71) **Chen, Y.** 2004. Fisheries management strategies. Central China Agricultural University, Wuhan, China, June 3, 2004..

(72) **Chen, Y**. 2004. Graduate Studies in the United States. 2004. East China Normal University, Shanghai, June 8, 2004.

(73) **Chen, Y.** 2004. Bayesian stock assessment for the American lobster fishery in the Gulf of Maine. Atalntic State marine Fisheries Commission Lobster Stock Assessment and Model Development sucommittee, Long Island, NY, June 17, 2004.

(74) *Reardon, K. and **Y. Chen**. 2004. Estimation of key fishery parameters for managing Jonah crab fishery in Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

(75) *Jones, K. and **Y. Chen**. 2004. A comparative study of a population model and a spatial tatistics model in assessing the green sea urchin stock in Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

(76) *Kirshenbaum, S. and **Y. Chen**. 2004. A fecundity study of the Maine sea cucumber population. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

(77) *Zhang, Y. and **Y. Chen.** 2004. A study of the lobster ecosystem in the Gulf of Maine. 134th American Fisheries Society Annual meeting, Madison, WI, Aug. 23-27. 2004.

(78) **Chen,** Y., M. *Kanaiwa, and C. Wilson. 2004. Developing and testing a simulation model for the American lobster. ASMFC Lobster Model Peer Review, Boston, Oct. 26-28, 2004.

(79) **Chen**, Y. , M. *Kanaiwa, and C. Wilson. 2004. Developing and testing a size-structured stock assessment model for the American lobster. ASMFC Lobster Model Peer Review, Boston, Oct. 26-28, 2004.

**(80) Chen, Y.** 2005. Assessing deep-sea red crab stock in the new England. Deep-sea red crab ad hoc stock assessment group meeting. Bigelow Lab, West Boothbay Harbor, Maine, March 8, 2005

**(81) Chen, Y.** 2005. Biological reference points in fisheries management. China Yellow Sea Fisheries Research Institute, Qingdao, China, June 8, 2005.

**(82) Chen, Y.** 2005. Statistical methods in fisheries stock assessment. Ocean University of China, Qingdao, China, June 15, 2005.

**(83) Chen, Y.** 2005. Fisheries stock assessment and management in the United States. Shanghai Fisheries University, China, June 18, 2005.

**(84) Chen, Y.** 2005. Developing a seasonal length-structured sex-specific stock assessment model for the American lobster. Atlantic States Marine Fisheries commission Lobster Stock Assessment Peer-review Committee, Boston, Aug. 2005.

**(85) Chen, Y.** 2005. Estimating and comparing gear selectivity (fishing gear symposium). American Fisheries Society Annual meeting, Anchorage, Alaska, Sept. 2005.

**(86) Chen, Y.** 2005. Biological reference points for fisheries management. Taiwan Fisheries Research Institute, Oct. 17, 2005.

**(87) Chen, Y.** 2005. Assessing American lobster stock in the northeastern United States. National Taiwan University, Taipei, Oct. 18, 2005.

**(88)*** Kirshenbaum, S. and **Y. Chen**. 2006. Workshop for new fisheries in Atlantic Canada. Department of Fisheries and Oceans, Halifax, NS, Canada, January, 2006.

**(89) Chen, Y**. 2006. Assessing the Maine green sea urchin fishery. School of Marine Sci Sciences and Technology, University of Massachusetts at Dartmouth, March 8, 2006

**(90) Chen, Y.** 2006. ASMFC Lobster Stock Assessment Committee, Providence, RI. June 22, 2006.

**(91) Chen, Y**. 2006. An analysis of impacts of artificial baits on cod bycatch. A presentation to the Cape Cod Commercial Hook Fishermen's Association, Gulf of Maine Research Institute, July 20, 2006.

**(92) Chen, Y.** 2006. Assessing American lobster stocks. National Sea Grant Review of the Maine Sea Grant College Program, Orono, ME. March 2006.

**(93)** *Errigo, M. and **Y. Chen**. 2006. Evaluating normal and fat-tailed likelihood functions in Bayesian stock assessment. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006

**(94)** *Zhang, Y. and **Y. Chen**. 2006. Developing and evaluating biological reference points for the American lobster fishery management. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006

**(95)** *Zhang, Y. and **Y. Chen**. 2006. Ecological modeling of American lobster population in the Gulf of Maine. 136th American Fisheries Society Annual meeting, Lake Placid, NY, Sept. 10-14, 2006.

**(96) Chen, Y.** 2006. Evaluating impacts of Gulf War on the Kuwait prawn fisheries. Taiwan Fisheries Research Institute, Dec. 20, 2006.

**(97) Chen, Y.** 2006. Assessing American lobster in the northeastern United States. National Taiwan Ocean University, Nov. 29, 2006.

**(98) Chen, Y.** 2007. Impacts of prior misspecification on fisheries stock assessment. March 12-14, 2007. The International Symposium on tuna and pelagic fish stock assessment and management. Shanghai Fisheries University, Shanghai, China.

**(99) Chen, Y.** 2008. Developing stock assessment framework for the American lobster. School of Marine Sciences Seminar Series, University of Maine, Orono, ME.

**(100) Chen, Y.**, Mike Errigo, et al. 2008. Evaluating stock assessment model for the GOM stock assessment. National Shellfish Association Annual Meeting, Rhode Island April 7-10, 2008.

(101) Danielle Brzezinski*, **Y. Chen**, and J. Wilson An analysis of habitat and benthic community effects of scallop dredging on Georges Bank using video photography data


**I have authored or co-authored 11 talks in national and international meetings in 2008, and 14 talks in national and international meetings in 2009. Because of length of the CV, they are not listed here. Stop updating after 2009.**


## PEER REVIEW
*(a)* **I HAVE REFEREED MANUSCRIPTS FOR THE FOLLOWING JOURNALS (incomplete list, stop updating after 2007)**:
  (1) Fishery Bulletin
  (2) ICES Journal of Marine Sciences
  (3) Canadian Journal of Fisheries and Aquatic Sciences (currently serve as Editor)
  (4) Aquatic Living Resources
  (5) Fisheries Research
  (6) Ecological Modeling
  (7) Transactions of American Fisheries Society
  (8) North American Journal of Fisheries Management
  (9) Ecological Applications
  (10) Scientia Marina
  (11) Freshwater and Marine Research
  (12) New Zealand Journal of Freshwater and Marine Research
  (13) Marine Biology
  (14) Ecosystems
  (15) Environmental Monitoring and Assessment
  (16) Chinese Journal of Oceanology and Limnology
  (17) Journal of Experimental Marine Biology and Ecology
  (18) Raffles Bulletin of Zoology
  (19) Chinese Journal of Fisheries
  (20) The Proceedings of the Third World Fisheries Congress
  (21) Publications by the American Fisheries Society
 (22) Great Lake Research
  (23) Journal of Sea Research
  (24) Ocean Modeling
  (25) Fish and Fisheries
  (26) Review papers for other scientists at the UMaine, University of Toronto, Memorial

University of Newfoundland, East China Normal University, Central China Agricultural University, Shanghai Fisheries University, etc.

**(b) REVIEW PANELS AND REVIEW RESEARCH PROPOSALS AND GRANTS FOR THE FOLLOWING FUNDING AGENCIES (<mark>incomplete list, stop updating after 2010</mark>)**
(1) Nature Sciences and Engineering Council of Canada (NSERC)
(2) National Science Foundation (NSF)
(3) National Science Foundation of China (NSFC)
(4) Alaska Sea Grant College Program
(5) RI Sea Grant program
(6) Maryland Sea Grant College Program
(7) North Pacific Research Board
(8) New Hampshire Sea Grant Program
(9) Exxon Valdez Oil Spill Trustee Council
(10) National Research Foundation (NRF), South Africa
(11) Saltonstall-Kennedy Program

## OTHER SCHOLARLY ACTIVITY (<mark>stop updating this section after 2006</mark>)

- Invited by the Transactions of American Fisheries Society to review the book "Incorporating Uncertainty into Fishery Models".
- Appointed on the Northeast Regional Stock Assessment Review Committee, 2003
- Hired as fisheries modeling consultant in the NOAA and Northeast Consortium funded deep-sea red crab stock assessment project (Dr. Rick Wahle, Biglowe Lab);
- Hired as statistical consultant in the NOAA-funded trawl selectivity research project (Dr. P. He, University of NH);
- Regularly consulted for statistical analyses, modeling, and stock assessment by scientists of the Maine Sea Grant Extension and Maine Department of Marine Sciences;
- In 1999, I applied for a Chinese National Science Foundation (CNSF) research fund, which is specifically designed for those oversea scholars who want to conduct research in China, to study impacts of aquaculture on lake ecosystem in China, in collaboration with Dr. Liqiao Chen (Co-PI) of the East China Normal University. (CNSF oversea scholar project #30028018). This three-year project (400,000 Chinese dollars with no indirect costs; 200-2003) has been completed.

## AREAS OF RESEARCH INTERESTS (in details)

1. Development of models of various complexities for marine and freshwater fisheries resources assessment and management.
2. Computer simulations in fisheries including design various computer stimulation studies to evaluate performance of stock assessment models of various complexities, survey/sampling designs, and harvest control rules.
3. Development of methods, tools and computer programs for management strategies evaluation.
4. Fisheries oceanography; fish communities and community compositions and dynamics; modelling distributions of fishes and fish communities in relation to environmental variables; fish community and population regulation.

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5. Fish life histories, ecology, and population dynamics; maturation of fishes and its relationships with environmental variables; spawning seasonality, distribution, and regulation; recruitment of fishes and its relationship with environmental variables; age determination and back calculation of fish growth; estimation of fisheries parameters (e.g. growth rates, mortality rates, abundance, maturation parameters); estimation of uncertainties associated with estimated fisheries parameters.
6. Stock assessments and yield modelling; assessment and modelling of effects of fishing on stock; stock-recruitment relationship; evaluation of effects of uncertainties associated with estimated fisheries parameters on stock assessment; fisheries management strategies and tactics; biological reference points; quantification and interpretation of uncertainty in stock assessment; quality and quantity of fisheries data for stock assessment; risk estimation and analysis for alternative fisheries management strategies.
7. Computer-intensive statistical approaches; error structure in regression analysis; robust regression analysis; identification and interpretation of outliers in analyzing fisheries data; experimental and survey design; computer simulations.
8. Bayesian inference; robust Bayesian inference in fisheries and Bayesian stock assessment framework; impacts of quality of fisheries data on Bayesian inference; statistical decision-making theory.
9. Spatial analysis of fisheries data; spatial dynamics of fisheries; optimal experiment and survey designs based on computer simulations, spatial statistics.
10. Fisheries ecological modelling and multi-species fisheries stock assessment modelling, and ecosystem-based fisheries stock assessment and management.
11. Fisheries management policy, fleet dynamics, ecosystem-based management, scales of fisheries management, development and evaluation of fisheries ecosystem indicators and management reference points.
12. Fisheries and scientific survey and experiment designs and data analyses.