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American Institute of Fishery Research Biologists

Promoting excellence in fishery science

... BRIEFS ...

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Table of Contents

President's Message

Membership Dues Reminder

Society News

Membership Dues

*New Membership Committee
Chair*

Member Spotlights

Publications

Letter to the Editor

Founding Fellow

Thank You, Steve Cadrin

Sadly, We Say Goodbye

President's Message

Having taken the office of the AIFRB Presidency in Quebec City in August, I attended my 14th AIFRB BOC annual meeting; three as Northern California District Director, and 11 as Membership Committee Chair. I have served the Institute under 5 AIFRB presidents, all of whom have taught me important lessons for assuming the Presidency of this most prestigious Institute.

Gary Sakagawa (2001-2002) was a great parliamentarian, and he impressed upon me how to run a meeting in a timely and efficient manner. Gary was also instrumental in the formation of the Kasahara Award. Dick Schaefer (2003-2004) too knew how to run a tight ship. His focus on the importance of increasing membership, in particular, impressed me (along with his most outgoing demeanor), and led me to accept the position of Membership Chair. Linda Jones (2005-2007) also understood the urgency of increasing membership, and began the discussion of looking for innovative ways to do so. She assisted in logistics planning and presenting the 50th Year Symposium in Seattle. Dick Beamish (2008-2010) was co-producer of the Symposium and co-editor of the Symposium Proceedings. Dick is able to reach all types of fisheries folks; students, academicians, agency and private professionals alike. His intellectual achievements brought additional credibility to the Institute. Where Dick brought credibility, Steve Cadrin (2011-2013) brought relevance to the Institute, in particular with his leadership in the science of sustainability.

The past few years have seen an insurgence in membership in the Institute, particularly under the leadership of Dick and Steve, with the prior Presidents laying the groundwork for where we stand today. Because of them, we have made great recent strides attracting a newer breed of member by embracing social media as a means for reaching out to digitally-minded students and young professionals, improving our website and newsletter, while continuing to maintain the high standards of excellence in Fishery Science through such a dramatic change in how the world communicates. They also inspired a handful of dedicated officers and important committee chairs that together have kept the Institute running in the right direction. In his last Presidential address, Steve summed up our most important assets: our historic reputation along with our more recent dedication to advancing excellence in fishery science, our outstanding membership, and our innovation in advancing our mission (e.g., symposia, research literature, social media).

We have much to do. We continue to struggle with low membership, low budgets, and the need to provide relevant programs and tools for members to improve their professions. During my term, I intend to:

- Follow the lead of the esteemed past Presidents.



- Accept my fiduciary responsibilities for the Institute and explore ways with our Treasurer (Allen Shimada) to improve our financial condition. All things are possible, such as sponsoring workshops and symposia, and exploring ideas like patronage, a lifetime membership level, merchandising products, obtaining corporate and agency sponsorships, and whatever else we can think.

- Work closely with our new Membership Chair, and the extended recruitment team (including Young Professionals) to continue membership growth and improve member retention, including development of new Districts and developing membership demographics by District to assist District Directors and the BOC in evaluating our past and present growth patterns.

- Provide support to Tom Ihde and Sarah Fox to continue the great strides we have made with our website and newsletter, *Briefs*, and to complete the rollout of the membership email list for email blasts.

- Develop close working relationship with the Directors, instituting a semimonthly conference call to discuss District issues, such as membership, promotions, and activities.

- Continue support with Cate O'Keefe on the Young Professionals Program and outreach at the District level.

- Working with Steve, Al, and others to fill vacant Directorships in key Districts; beginning with the Pacific Northwest (Washington), and especially Oregon (has a very active AFS chapter) for next years meeting.

- Exploring the feasibility of having a 60th Anniversary Symposium in 2016 on the West Coast, exploring effects of recent extremes in primary production on fish stocks; are we asking the right questions and are we doing the right science?

- Continue to support excellence in fishery science, both to the profession as well to the students and professionals, and uphold the ideals of the Institute, supporting sustainability,

And with that, and your help, let's get to work.

Tom Keegan, AIFRB President

Society News

NEW: For Members Only

That's right! We now have MEMBERS ONLY content. Just for you!

- Your login is **your email**.
- Your password (until 2015):
F!sh@!frB
- Sign in to: www.aifrb.org/login

NEW: For Young Professionals / Students

- Great Career Links:
aifrb.org > login
- Put a Shine on Your CV!:
Aifrb.org > login

Bernie Skud's Blog Posts and Papers Now Housed on AIFRB

*Read more: Aifrb.org > *briefs**

Annual Meeting wrap-up photos and Board of Control minutes are online now

*Read more: Aifrb.org > *briefs**

Are we still fishing down the food web?

The symposium was highlighted by two keynote speaker: Dr. Villy Christensen and Dr. Trevor Branch.

*Read more: Aifrb.org > *briefs**



2015 Membership Year Dues Notice

American Institute of Fishery Research Biologists
(September 1, 2014 - August 31, 2015)

*For credit card payment visit www.aifrb.org
OR mail payment to
7909 Sleaford Place, Bethesda, MD 20814*

Dear Colleague:

Please return dues as indicated:

Professional Associate/Member/Fellow \$40.

Student Associate \$20.

Emeritus Associate/Member/Fellow No Dues.

I wish to make a tax-deductible donation \$_____.

I allow my member status and contact information to be posted to a Members' Only Page on www.aifrb.org _____.

I wish to continue receiving BRIEFS by postal mail _____.

(Note: Members with email addresses on file will receive electronically)



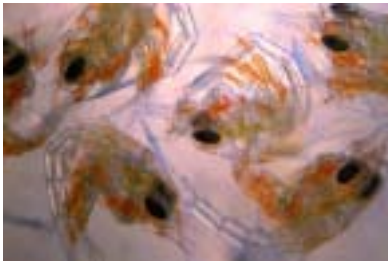
Introducing Todd Chapman, AIFRB's New Membership Committee Chair

Todd Chapman is currently the Southern California Aquatics Group Manager at ECORP Consulting Inc. based out of the Santa Ana, California office. He achieved his Master's Degree in 2000 from California State University of Long Beach, where he studied otolith development and increment formation in early life history stages of California grunion (*Leuresthes tenuis*). His current research interests include the ecology and habitat associations of nearshore marine fishes, and the competitive interactions between sensitive freshwater fishes and non-

native invasive species. He has been an active member of the southern California district of AIFRB for the past eight years, and has participated in the judging of student papers for AIFRB sponsored awards at recent Southern California Academy of Sciences (SCAS), and California/Nevada Chapter of American Fisheries Society (AFS) meetings. In his spare time, he enjoys woodcarving and float tube fishing with his three kids in both northern California and the eastern Sierras.

Member Spotlights

Jesse Trushenski, Jim Bowker, and Christine Moffitt Complete New Guidance Regarding Hatchery Operation and the Use of Hatchery-Origin Fish



AIFRB Members Jesse Trushenski, Jim Bowker, and Christine Moffitt, and AFS steering committee members of "Hatcheries and Management of Aquatic Resources (HaMAR)" have completed new guidance regarding hatchery operation and the use of hatchery-origin fish. The process identified seven primary concepts that remain informative and should be considered when stocking fish:

1. Comprehensive fishery management plans.
2. Biological and environmental feasibility.
3. Risk and benefit analysis.
4. Evaluate potential beneficial or harmful effects of increased and directed public use of aquatic environments on biotic (including human) communities.
5. Economic evaluation.
6. Public involvement.
7. Interagency cooperation

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It is worth noting that this was originally posted in the November 2014 aquaculture-themed issue of Fisheries Magazine.

Beamish, Cadrin, Lassen, and Rothschild: on the status of fisheries and sustainability of seafood

New Orleans, Louisiana - Senior scientists and fishery managers from leading fishing nations concluded three days of talks on the status of fisheries and sustainability of seafood at the fourth annual Science and Sustainability Forum (SSF) which called for the re-evaluation of seafood ecolabelling guidelines that many say are being misapplied particularly in small scale fisheries and coastal communities. A major concern is that ecolabelling is creating market barriers for coastal fisheries and communities. "Only ten percent of global fisheries have gone through private ecolabelling programs," said **Thor Lassen**, president of Ocean Trust and a co-convenor and principle organizer for the Forum..... "There simply is not enough money to certify all fisheries in the world, nor does it make sense. We have to be more pragmatic when it comes to the ecolabelling of seafood products." **Steve Cadrin**, president of AIFRB, noted, "Misinformation needs to be corrected because an imbalanced agenda threatens the human aspects of sustainability."..... Defining sustainability is a large part of the problem. As **Brian Rothschild**, University of Massachusetts Dartmouth School for Marine Science and Technology, pointed out "the language of sustainability is fuzzy...a concept that is constantly changing rather than a well-defined goal. What we need," Rothschild continued "is a concrete definition with clear performance measures and minimum ambiguity that tracks environmental change," which **Dick Beamish**, the former AIFRB president and Department of Fisheries and Oceans Canada scientist, expanded upon in his discussion on the link between Pacific salmon abundance and climate regime shifts in the ocean.

Read more: Aifrb.org > briefs

Ocean Trust: November 10, 2014





AIFRB member, Dr. Patrick Lynch's 2012 paper, "Performance of methods used to estimate indices of abundance for highly migratory species," published in *Fisheries Research* has been selected for this year's W.F. Thompson Best Paper Award. This award is made annually by the American Institute of Fishery Research Biologists for the best student-authored paper published in the peer-reviewed literature. The Award is presented at the Annual Meeting of the AIFRB Board, which coincides this year with the Annual Meeting of the American Fisheries Society in Quebec City, Canada. Dr. Lynch is the NOAA Fisheries National Stock Assessment Coordinator and a graduate of the NOAA Fisheries/Sea Grant Population Dynamics Fellowship.

Abstract

Patrick D. Lynch, Kyle W. Shertzerb, Robert J. Latoura

Estimating indices of abundance from fishery-dependent data requires that catch-per-unit-effort (CPUE) be standardized to account for factors that may have affected CPUE but are not related to changes in abundance. Such standardization is particularly important for highly migratory species (e.g., tunas, pelagic sharks, and billfishes), because of time-varying mismatches between distributions of abundance and the distribution of fishing effort. Two commonly applied methods for standardizing CPUE are generalized linear models (GLMs), which can account for changes in fishing practices in a straightforward linear fashion, and habitat-based standardizations (e.g., statHBS), which use nonlinear analysis to relate the distribution of fishing effort to the species distribution. We evaluated the accuracy of these methods over three patterns in vertical catchability as related to ocean temperature profiles, and 50 possible biomass trajectories using a simulation framework that followed the general effort dynamics of the Japanese longline fishery in the Atlantic Ocean from 1956 to 2009. Additionally, we propose a method for directly incorporating vertical habitat information into the linear models. Overall, we found the most accurate approach to be a delta-lognormal GLM with our unique habitat factor. The statHBS approach was the most accurate when catchability was simulated to peak in surface waters. However, statHBS was much more sensitive to errors in estimates of longline hook depths (i.e., habitats exploited). Based on these results, we recommend that relative abundance be estimated for highly migratory species following a delta-GLM approach that considers vertical habitats fished.

Patrick D. Lynch, Kyle W. Shertzer b, Robert J. Latour a, 2012. Performance of methods used to estimate indices of abundance for highly migratory species. *Fisheries Research* 125–126 (2012) 27–39

Read more: Aifrb.org > briefs



Catherine O'Keefe, AIFRB Member, Helps Teach Fishery Management to Cubans

It might seem odd: Cuban fisheries managers and scientists seated around a table in this faded but faded Cape Cod fishing port, sharing their stories of managing crocodiles, manatees and reef fish while trying to absorb the successes and failures of the New England fisheries.

But, as Elisa Garcia, Cuba's director of fishing regulations and science put it, there is universality to the problems nations encounter in managing fish stocks.

"We all gain from the exchange and the experience of my colleagues from the United States," Garcia said through a translator during a break in a conference last week featuring fisheries experts from Cuba, the United States and Mexico, at the Center for Coastal Studies. "We are talking about different places and species but the problems are similar," she added.

Catherine O'Keefe, an American Institute of Fishery Research Biologists member and a researcher with the University of Massachusetts School of Marine Science and Technology, demonstrated how fishermen and other stakeholders could contribute to managing a fishery by using available real-time data such as water temperature, or catch reports, to avoid hot spots with negative consequences to the environment or a particularly depleted species.

"It can be no-tech," O'Keefe told the conference. "The idea is communicating information. Boat-to-boat. Captain-to-captain." *Read more: Aifrb.org > briefs*



AIFRB Member Dr. Bruce Collette Awarded Joseph S. Nelson Award for Lifetime Achievement in Ichthyology

NOAA Scientist Wins Prestigious Lifetime Achievement Award

NOAA Fisheries Senior Research Scientist and **AIFRB member Dr. Bruce Collette** was recently awarded the Joseph S. Nelson Award for lifetime achievement in ichthyology (the study of fish) from the American Society of Ichthyologists and Herpetologists. This award recognizes an outstanding body of work in ichthyology and is only the second of its kind to be awarded. The award is named for Joseph Nelson, a distinguished ichthyologist best known for his several editions of “Fishes of the World.”

What Fish Are You Really Eating?

Chances are if you’ve eaten sushi or sashimi, Bruce’s work has affected you. In fact, without his research you might not know the actual species of tuna you’ve been eating at your local restaurant.

Early in his career at NOAA Fisheries (then called the Bureau of Commercial Fisheries), Bruce and his colleague Bob Gibbs were asked to characterize a specific group of tunas that include some of the more well-known species such as albacore, bluefin, and yellowfin, and determine how many species of these tunas existed—a project that ultimately took more than 8 years. In 1961 it was widely believed that yellowfin tuna found near Hawaii were a different species than those in the Atlantic.

As it turned out they were all the same species (*Thunnus albacares*). A major paper was published in *Fishery Bulletin* in 1967, describing seven species of tuna in the genus *Thunnus*. That body of work has stood the test of time, with one exception subsequently established by Bruce himself when he identified three separate species of bluefin tuna (Atlantic, Pacific, and Southern) in 1999.

Read more: Aifrb.org > briefs



AIFRB Member Carl Safina – International Animal Conservation Hero Award

The six conservation heroes – 2014 winner Dr. Patricia Wright, along with finalists Dr. Joel Berger, Dr. Gerardo Ceballos, Dr. Carl Jones, Dr. Russ Mittermeier and **AIFRB member Dr. Carl Safina** – were formally recognized at the Indianapolis Prize Gala, presented by Cummins Inc. this September, for their courageous work saving the earth’s most threatened animals.

The Indianapolis Prize was initiated by the Indianapolis Zoo as a significant component of its mission to empower people and communities, both locally and globally, to advance animal conservation. This biennial award brings the world’s attention to the cause of animal conservation and the brave, talented and dedicated men and women who spend their lives saving the Earth’s endangered animal species. The Indianapolis Prize has received support from the Eli Lilly and Company Foundation since its inception in 2006.

Read more: Aifrb.org > briefs



AIFRB Member and Emeritus Jeff June in a NOAA Video : Diving for Debris: Washington’s Success Story in Fishing Nets out of the Ocean

The scale of the challenges facing the ocean—such as overfishing, pollution, and acidification—is enormous, and their solutions, achievable but complex. That is why the impressive progress in cleaning up a major problem in one area—Washington’s Puget Sound—can be so satisfying. Get a behind-the-scenes look at this inspiring progress in a new video from NOAA-affiliate Oregon SeaGrant on the Northwest Straits Foundation net removal project.

For over a decade, the Northwest Straits Foundation, supported by the NOAA Marine Debris Program, the U.S. Environmental Protection Agency, state agencies, and many others, has been removing lost and abandoned fishing nets from the inland ocean waters of Puget Sound.

A problem largely invisible to most of us, these fishing nets are a legacy of extensive salmon fishing in the Puget Sound, which is now much diminished. Lost during fishing operations, the nets are now suspended in the water column or settled on the seafloor, where they snare dozens of marine species, including marine birds and mammals, and degrade the ocean habitat where they were lost. Made of... *Read more: Aifrb.org > briefs*

Six AIFRB members Awarded a Clark Hubbs

2014 AIFRB Research Assistance Award Recipients

Erin K. Adams, University of Massachusetts at Dartmouth, School for Marine Science and Technology, will present a paper entitled “Measuring the Performance of the Northeast United States Research Set Aside Programs” in the symposium “Changes in Management Regimes in North Atlantic Fisheries and the Effects They’ve Had on Abundance, Practices, and the SocioCultural Systems of Fishermen and Fishing Communities” at the 144th AFS Annual Meeting in Quebec City, Canada. She was sponsored by Daniel Georgianna of the University of Massachusetts at Dartmouth.

Daniel R. Goethel, University of Massachusetts at Dartmouth, School for Marine Science and Technology, will present a paper entitled “Testing the Performance of a Spatially Explicit Tag Integrated Model of Yellowtail Flounder through Simulation Analysis” in the theme session on “The Next Generation of Fish Stock Assessments” at the 144th AFS Annual Meeting in Quebec City, Canada. He was sponsored by Steve Cadrin of the University of Massachusetts at Dartmouth.

Marissa Hammond, Michigan State University, Department of Fisheries and Wildlife, Center for Systems Integration and Sustainability, will present a paper entitled “Predicting lake whitefish (*Coregonus clupeaformis*) year class strength to improve prerecruitment indices in upper Great Lakes, USA” at the 144th AFS Annual Meeting in Quebec City, Canada. At the meeting she will also be lead organizer of a symposium entitled “Future of Fisheries: Perspectives for Emerging Professionals.” She was sponsored by Bill Taylor of the University of Michigan.

Katherine Lyons, California State University at Long Beach, College of Natural Sciences and Mathematics, will present a paper entitled “Bioaccumulation of organochlorine contaminants and response to exposure in male and female round stingrays (*Urobatis halleri*) from southern California” at the 57th Annual Joint Meeting of Ichthyologists and Herpetologists in Chattanooga, Tennessee. She was sponsored by Chris Lowe of the California State University at Long Beach.

Konstantine J. Rountos, Stony Brook University, School of Marine and Atmospheric Sciences, will present a paper entitled “Are We Catching What They Eat? Assessing Mean Trophic Level of Fisheries Catch and Predator Consumption Globally” in the AIFRBsponsored symposium “Are We Still Fishing Down the Food Web?” at the 144th AFS Annual Meeting in Quebec City, Canada. He was sponsored by Ellen Pikitch of Stony Brook University.

Lynn Waterhouse, University of California San Diego, Scripps Institution of Oceanography, will present a paper entitled “One Fish, Two Fish: Evaluating an in Situ Visual MarkResighting Method to Assess the Abundance of Spawners at Fish Spawning Aggregation” at the 144th AFS Annual Meeting in Quebec City, Canada. She was sponsored by Brice Semmens of the University of California San Diego.

Publications

Trends in Abundance and Management of Striped Bass Along the Atlantic Coast: Can We Have too Much of a Good Thing? by Desmond M. Kahn, Ph.D.



In response to a decline in abundance of striped bass over the last decade, some recreational fishers on the Atlantic coast have been calling for reductions in striped bass landings by both recreational and commercial fisheries. In fact, some recreational fishers have been opposed to commercial landings of striped bass for some time, and instead would prefer to have the species classified as a game fish, which cannot be sold.

Striped bass are one of our great inshore fishery natural resources along the Mid-Atlantic and southern New England coastline. If commercial landings were banned, then people without the time or money to fish would not be able to eat striped bass, known locally as rockfish. It is a traditional delicacy, at least in Delaware and Maryland. Consumption of fish such as striped bass has great benefit to human health. We would then have to import even more of our seafood from Asia than we already do, to replace that lost source of fish in our diet, consequently worsening our trade deficit. Then ...*Read more: Aifrb.org > briefs*



**‘Fishing for Pollock in a Sea of Change’
Book Review by
Dr. Fred Utter**

*Read more:
Aifrb.org > briefs*

NOAA Grant Opportunities

The 2015 NOAA Fisheries/Sea Grant Fellowship Federal Funding Opportunities for both Marine Resource Economics and Population and Ecosystem Dynamics have now posted to Grants.Gov. The links for each announcement are as follows:

2015 NOAA Fisheries/Sea Grant Fellowships in Marine Resource Economics

- FFO#: NOAA-OAR-SG-2015-2004341

2015 NOAA Fisheries/Sea Grant Fellowships in Population and Ecosystem Dynamics

- FFO #: NOAA-OAR-SG-2015-2004339

Important Information

- Students should submit applications to a Sea Grant Program and not submit information directly into Grants.Gov
- Student applications are due to Sea Grant Programs by **January 29, 2015**.
- Sea Grant Programs must transmit the application via Grants.gov by 5:00 pm, Eastern Time **February 26, 2015**.
- Additional application information can be found on the NOAA Fisheries/Sea Grant Fellowship website.
- A new set of FAQs has also been added to the NOAA Fisheries/Sea Grant Fellowship website. See FAQs.

Can you tell what this is?



My picture from last month in the Bering Sea. -Allen Shimada

Letter to the Editor

AIFRB Briefs Newsletter

Subject: Rotenone and Parkinson's disease

I thought the following recent exchange of e-mails between myself and Dr. Arati Inamdar, Physician/Scientist at the Agricultural Experiment Station, Rutgers University, New Brunswick, New Jersey, might be of interest to the Magazine's readership.

Dear Dr. Inamdar:

Having just read a brief article about your and Dr. Bennett's research into causes of Parkinson's disease (PD) in the winter (2013-2014) edition of Rutgers Magazine, I thought I might share with you some information which you may find of interest. I have Parkinson's disease. I graduated from RU in 1957 (BSc., AG) and 1959 (MSc., GSNB) with majors in Fish and Wildlife Mgt and Fisheries Science, respectively. During the summers of 1957 and 1958, I was employed as a Biologist's Assistant with the NJ Division of Fish and Game's Lake Survey Project whose objective was to sample and determine the status of fish populations in every public lake and pond in the State. In addition to gill nets and haul seines, our primary sampling "tool" was rotenone which, when applied, causes fishes to surface seeking oxygen, thereby subjecting themselves to easy capture by dip net. We treated its use casually and applied it with reckless abandon, wearing no protective clothing or breathing apparatus. Today, more than a half century later, in addition to myself, I am aware that another of my co-workers on the Project, as well as two other recently deceased colleagues who worked on similar projects in other jurisdictions, also acquired PD. I also feel certain that there must be others of whom I am not aware. While anecdotal, I believe that these observations go beyond coincidence. Indeed, I now believe there to be a strong causative relationship. I would be very interested in knowing of any similar observations you might have made, or are aware of, in this regard. Thank you.

Sincerely, Richard H. Schaefer

Dear Mr. Schaefer:

The cause and effect relationship between certain pesticides/biogenic agents, including those of fungal origin, and Parkinson's disease has been demonstrated in various experimental studies, e.g.:

O Cannon JR, Greenamyre JT (2013): Gene-environmental interactions in Parkinson's disease: Specific evidence in humans and mammalian models. *Neurobiol. Dis.* 57: 38-46.

O Inamdar et al. (2013): Fungal-derived semiochemical 1-octen-3-ol disrupts dopamine packaging and causes neurodegeneration. *Proc. Natl. Acad. Sci. U.S.A.* 110(48): 19561-6.

O Samuel M. Goldman (2014): Environmental Toxins and Parkinson's Disease. *Annual Review of Pharmacology and Toxicology*, Vol. 54: 141-164.

We need to make sure that the message contained in such studies is communicated effectively to the public.

Sincerely, Arati Inamdar

I would be interested in knowing if other AIFRB members have suffered, or are aware of, similar experiences. I can be contacted at dickschaefer@aol.com. Thank you.

Founding Fellow John Lawson Hart



John Hart was born in Toronto, Ontario, Canada, on May 8, 1904. In his undergraduate years at the University of Toronto, he was influenced first by Dr. W.A. Clemens, and later by Dr. J.R. Dymond, to pursue a career in fisheries biology, and from 1922 to 1925 he studied the life history of the whitefish, mainly in Lake Nipigon. During this early period, according to Dr. F.E.J.

Fry, John Hart did “a fundamental and pioneering piece of work” in Shakespeare Island Lake in Lake Nipigon by producing “one of the early population estimates that was made of a population of fish”—work that was continued by Dr. W.E. Ricker. In recollection, John recently referred to this period, which involved all the vicissitudes of primitive outdoor living and crude scientific equipment, as “one of the very happy times of my life.” In the late 1920s, he continued his studies on whitefish in the Bay of Quinte in Lake Ontario, and these formed the basis for his Ph.D. degree, which he received in 1930 from the University of Toronto. After a brief period as lecturer in zoology at the University of Alberta in Edmonton, he joined the Biological Board of Canada (later the Fisheries Research Board of Canada (FRBC)) in 1929 at the invitation of Dr. Clemens, who was then Director of the Board’s research station at Nanaimo, British Columbia. He remained with the Board for 38 years until his retirement in 1967. His first assignment at Nanaimo was to investigate the Pacific pilchard (California sardine) stocks off British Columbia, which were the basis for an important reduction (oil and meal) fishery. From age and growth studies, he noted that only the larger and older fish were found off British Columbia. Through contacts with California scientists, including Dr. W.F. Thompson, he became convinced that pilchards spawned only in waters to the south of British Columbia. He postulated that only the large year classes, spawned off California and Mexico, reached the British Columbia coast in abundance. This classic study enabled him to forecast accurately the decline and collapse of the British Columbia pilchard fishery, as the new year classes became progressively less abundant through either natural causes or overfishing off California.

In the early 1930s, Dr. Hart also initiated studies on the Pacific herring, another pelagic species about which little was known. He recognized in those early years the urgent necessity of determining the size of fish stocks in order to advise on the permissible catch. He soon concluded that morphometric studies would not be adequate to delineate the intermingling races of Pacific herring, and, with the assistance of Dr. A.L. Tester, he launched an extensive tagging and recovery program, which formed the basis for definitive studies by Tester in later years.

In the early 1940s, John Hart's interests in marine fisheries changed in response to the urgent need for information on dogfish, lingcod, and other groundfish fisheries, which were expanding rapidly to offset wartime shortages of vitamin A and meal products. Sparse scientific data were available on the complex of fishes being caught by the fast-developing otter-trawl fishery, and little was known of the impact of this fishery on long-established hook-and-line fisheries for lingcod, sablefish, and halibut.

To provide answers to these difficult questions, John set up a groundfish investigation in 1943, which, through his wise leadership, made significant scientific advances in the years that followed... *Read more: Aifrb.org > briefs*

We Say Goodbye



In Memoriam: Dr. Robert “Bud” Burgner

In 1945, Alaska was not yet a state and the bountiful salmon fisheries of this territory were in jeopardy because of poor management and a lack of scientific information. The Alaskan salmon industry approached the School of Fisheries Director, William F. Thompson, to develop a research program for sockeye salmon, which led to the formation of the Fisheries Research Institute (FRI) in 1947. Originally administered by the UW Graduate School, FRI joined the College of Fisheries in 1958.

Shortly before FRI was founded, Thompson hired his first staff member for the project: Robert Louis “Bud” Burgner (PhD 1958, UW Fisheries). Bud became FRI director in 1967, serving until his retirement in 1984. During his tenure, FRI’s research scope expanded greatly, pursuing studies on diverse aquatic species across a landscape that encompassed the northeast Pacific, and addressing critical regional, national, and international issues.

In the early days of FRI, Bud and his colleagues lacked many of the comforts of modern research, such as Goretex, Polartec, and reliable outboard motors. They even had to build the cabins they lived in. That they got work done under these conditions is remarkable.

Nearly seven decades later, the program that Burgner helped pioneer still prospers. The data sets initiated back then continue today, providing evidence of our changing climate and the scientific basis for sound management of salmon fisheries, with benefits to people and the entire ecosystem.

To learn more about Bud’s life, we recommend Bud’s memoirs: 60 Years: My Career with Fisheries Research Institute, University of Washington

.... Read more: Aifrb.org > briefs



In Memoriam: Hamar Midgley

Born in Wynnum, Queensland in December, 1918, Midgley fought overseas during World War 2 before returning to Australia and going on to become a self taught authority on Australia’s native freshwater fish.

Midgley is recognized within Australian fish biology circles as a true fish research pioneer. With his late wife Mary, he made many scientific discoveries concerning the behavior of fish – including the fact that Australian bass migrated to breed in brackish water.

As recognition of the Midgley’s tireless research efforts there are three native fish named in their honor - the silver cobbler (*arius midgleyi*), Midgley’s grunter (*pingalla midgleyi*) and Midgley’s carp gudgeon (*hypseleotris* sp).

Amongst Hamar’s many achievements can be included the writing of several books relating to Australia’s freshwater fish species - including the well known *Field Guide of Freshwater Fishes of Australia*, co-authored with G.R.Allen and M. Allen - and detailed studies of the waterways in which they live.

Modern day anglers owe a great deal of gratitude to Midgley who is largely responsible for introducing the, now widespread, practice of stocking impoundments with native fish such as bass, perch, saratoga and barramundi.

In 1984 Midgley was awarded the Order of Australia (OM) for studies of native freshwater fishes. In 1994 he received an Honorary Doctorate of Science from University of Queensland for outstanding contributions in the fields of fish biology and ecology.

“Hamar was a giant in the freshwater fish world, and he had an extensive knowledge of the freshwater fishes, the waters and limnology of Queensland and the Northern Territory,” says Stuart Rowland, principal research scientist for NSW Fisheries.

“A life well lived, he was an inspirational person with many significant achievements. Truly a great Australian.”

In his book *Rivers and the Sea*, legendary Australian fishing writer Vic McCristal wrote of Midgley:

“In northern Australia there are dozens of rivers that most of us have never heard of. They contain huge volumes of fresh water, and what little we do know of them is due to

Hamar and his wife Mary.”

“Success for Midgely meant nothing more than enriching the lives of others. Through success or failure; apathy or fund strangulation, fishermen have cause to remember Hamar, and thank him,” McCristal wrote.

In a tribute to Midgley who was inducted into the Australian Society for Fish Biology’s Hall of Fame, Stuart Rowland wrote a biography of his many life achievements, reprinted below with permission.

... Read more: Aifrb.org > *briefs*

Thank You, Steve Cadrin— For a Great Presidency



A Look Back: Steve Cadrin’s Vision for the AIFRB:

AIFRB should continue to provide all members with frequent opportunities to interact with other accomplished fisheries research biologists.

The primary challenge to AIFRB is maintaining the momentum that was generated from recent efforts and investments in symposia, awards and regional meetings. AIFRB products, ranging from memorable District dinners to benchmark publications, are the best way to maintain and expand membership, activities and budgets. Recent AIFRB accomplishments were achieved by a relatively small group of people who are dedicated to promoting the Institute.

If AIFRB is to grow and have expanded benefits to members, leadership of the Institute will need to be distributed, so that more initiatives with broader impact are led by a larger group of members. The AIFRB Board will continue to be responsible for governance of the Institute, but a second tier of leadership should be promoted in which members can contribute to local, regional or international projects according to their interests and skills. An active and productive Institute should have effective governance that is able to provide funding to districts so that they in turn can feed back new members and contributions to the Institute as a whole. I will strive to maintain the initiatives and accomplishments of past Presidents and lead AIFRB in the provision of quality programs for an expanded network of fisheries research biologists.

Thank you, Steve. You did this and more!

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Interruption of the Kemp's Ridley Population's Pre-2010 Exponential Growth in the Gulf of Mexico and its Aftermath: One Hypothesis

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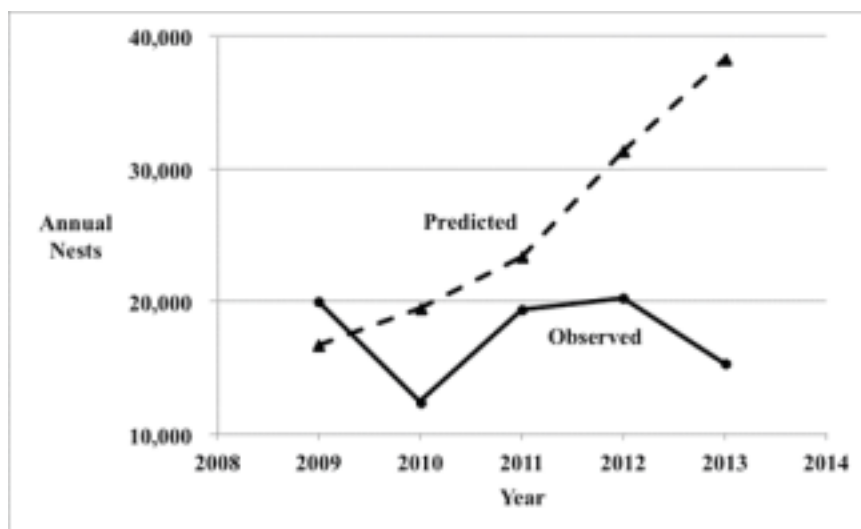
This commentary proposes one hypothesis to explain the abrupt interruption of pre-2010 exponential growth in the “conventional index” of Kemp's ridley sea turtle (*Lepidochelys kempii*) population size in the Gulf of Mexico following the end of the 2009 nesting season, and its aftermath (Figs. 1 & 2) (also see data in Burchfield and Peña 2013, which provides maps of Tamaulipas nesting beaches). The conventional index is the combined annual number of nests (i.e., clutches laid) documented during a nesting season, on three segments of nesting beach in Tamaulipas, Mexico; viz., Rancho Nuevo, Playa Dos-Barra del Tordo, and Tepehuajes (Heppell *et al.* 2005). Nest counts are commonly used to

monitor changes in sea turtle populations, but many factors affect the relationship between numbers of nests and nesters, and nesters represent very small and varying proportions of the total population in any given year (Seminoff & Shanker 2008; Bjørndal *et al.* 2011). Nevertheless, the annual Kemp's ridley nest count obviously depends in large part on the annual number of nesters. The nest count is not complete before the nesting season ends and the count is verified, thus a change in annual number of nests between two consecutive years cannot be determined before the nesting season ends and the nest count is verified in the second of the two years. Therefore, whatever caused the drop in number of nests in 2010 could have occurred any time between the ends of nesting seasons in 2009 and 2010. The combined annual number of hatchlings released from the three index beaches is also documented (Fig. 2), and likewise not final until verified after hatching is considered complete for the season.

Natural and anthropogenic mortalities were expected to occur in all Kemp's ridley life stages following the nesting season in 2009 (Crowder & Heppell 2011; NMFS *et al.* 2011; Gallaway *et al.* 2013; Heppell In press), but the only life stages that could have affected the 2010 nest count were adult females, and subadult females that matured between the ends of nesting seasons

in 2009 and 2010. However, natural and anthropogenic mortalities in adult and subadult females were not expected to reach levels high enough to interrupt exponential growth in annual nests (Crowder & Heppell 2011; NMFS *et al.* 2011; Gallaway *et al.* 2013; Heppell In press). After the 2010 drop in nests, the substantial increase in nests in 2011 and the slight increase in nests in 2012 (Fig. 1; see also Burchfield & Peña 2013) were encouraging, but probably resulted from population momentum. They suggested that population growth had quickly resumed (Gallaway *et al.* 2013), and provided hope that exponential growth would soon resume. However, the numbers of nests in 2011-2013 were well below those predicted (Fig. 1).

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