



International Society for Neuroethology

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President's Column

Paul S. Katz
President of the ISN

I am writing this column from **Woods Hole**, Massachusetts, where I am co-directing the **Neural Systems and Behavior (NS&B)** course (<https://sites.google.com/site/nsbmb/>) at the Marine

Biological Lab (MBL). This course is a wonderful opportunity for students, post-docs, and even faculty to broaden their neuroethology experience, learn new techniques, meet extraordinary researchers, and soak up the ambiance of this historic institution. There are twenty students from around the world in the eight week NS&B course. They are learning everything from leech neurobiology to classic neuroethological preparations like electric fish and songbird to optogenetics in mouse hippocampus. It is not just an incredible and life-changing experience for the students, but it is also something that attracts 55 faculty and teaching assistants to work with the students in two week cycles.

The roots of neuroethology run deep at the MBL. The first director of MBL (from 1888-1908) was Charles Otis Whitman, who, in addition to being a naturalist, anatomist, and embryologist, could also be considered an early ethologist. His work on pigeons included their phylogeny, behavior, and communication¹. One of his classic works is entitled simply "Animal Behavior" (1899).

In addition to the NS&B course, there are other opportunities for young investigators at MBL, especially through a fellowship sponsored by the **Grass Foundation** (<http://www.grassfoundation.org/>). Seven fellows are currently doing independent projects in the Grass Lab. The Grass Foundation also sponsors an annual Forbes Lecture. This year, the speaker was Russ Fernald, who gave a fascinating set of lectures on how social behavior affects the brain and physiology of cichlid fish.

Because I was in Woods Hole this summer, I invited the ISN Executive Committee to hold our annual meeting here. To try to save money, we held a teleconference with Past-President Martin Heisenberg in Germany. Unfortunately, that meant that Martin did not get to enjoy the local scenery of sailboats in the harbor as we met.

Highlights of the Executive Committee minutes are posted in this issue of the newsletter. Once again, I am happy to report that the ISN is in great financial shape. However in order for the Society to stay healthy, we must maintain our membership base. Therefore it is important for everyone to renew their memberships in a

¹ Davenport CB (1917) The personality, heredity, and work of Charles Otis Whitman, 1843-1910, *American Naturalist*, 51:5-30.

timely manner. We have introduced a new type of membership for post-docs that will make it less expensive for them to join, giving them an overall greater discount at the ICN. Further plans were discussed for the next International Congress for Neuroethology, which will be held in 2012 in College Park Maryland (<http://icn2012.umd.edu/>).

Since the last newsletter, we have made announcements of the winners of the ISN Capranica Prize and the Heiligenberg Travel Awards. This is the first year that ISN has taken over administration of the Capranica Prize from Bob and Pat Capranica who, out of their own generosity, have supported this prize since 1986. It was appropriate therefore in honor of Bob's 80th birthday that the ISN issue the award in his honor. The first recipient of the ISN Capranica Prize is **Paloma T. Gonzalez-Bellido** in recognition of her paper Gonzalez-Bellido PT, Wardill TJ, Juusola M. (2011) Compound eyes and retinal information processing in miniature dipteran species match their specific ecological demands. *Proc Natl Acad Sci U S A*. **108**: 4224-9. <http://www.pnas.org/content/108/10/4224.long>.

I am also pleased to announce the creation of a special honor, **Fellow of the International Society for Neuroethology**, which will provide recognition for the scientific achievements of more established ISN members. Fellows are recognized for meritorious efforts to advance the science of neuroethology, including a significant corpus of published research that forms a distinct and important scientific contribution, leadership in educational and outreach efforts including public science education, international education, and/or educational methods, and extraordinary service that promotes science and particularly neuroethology. We will announce a call for nominations later in the fall.

I am looking forward to seeing ISN members at the upcoming Gordon Conference on Neuroethology, which takes place in August, not far from Woods Hole. If you miss that one, you should consider attending the GRC on Genes and Behavior in March 2012 (<http://www.grc.org/programs.aspx?year=2012&program=genes>).





PHOTO: by Paul Katz, Eel Pond, the MBL 6/11



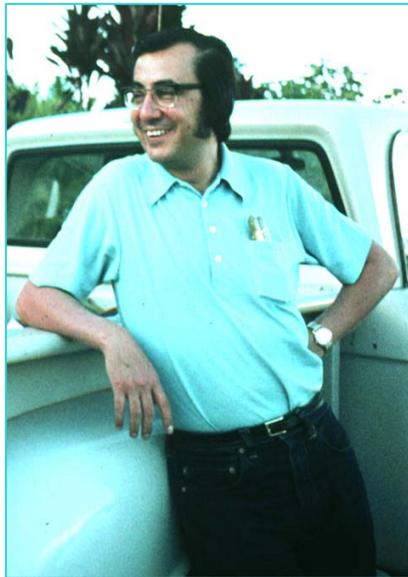
THE CAREER OF BOB CAPRANICA

by Peter Narins, UCLA, USA

In honor of awarding the first annual ISN Caprianca Prize, Peter Narins wrote this brief introduction into the career of Bob Capranica.

PHOTO: Bob Capranica, El Yunque, Puerto Rico, 1973

When Bob Capranica was an undergraduate student at UCLA, he used to park his car on the grass in front of Royce Hall, the iconic structure that is emblematic of the Los Angeles campus (try doing that today!). Bob had to commute the 22 miles from Arcadia where his parents had a home, and where Bob grew up. After a year and a half at UCLA studying Chemical Engineering, he joined the navy for four years where he was first exposed to



electronics, which really excited the young Bob. He then returned to finish his undergraduate degree in EE at UC Berkeley. Following this, he accepted a job offer at the Bell Laboratory in Murray Hill, New Jersey. There he met several people who would influence him profoundly in his scientific thinking—Wilhelm van Bergeijk, Larry Frishkopf and Gerard Harris. Van Bergeijk was a brilliant theoretician who spent his time thinking about the function of the auditory and vestibular systems, who, together with Frishkopf and Harris (auditory neurophysiologists) formed the nucleus of Bell Lab’s formidable auditory research group. Moise Goldstein spent his summers with the group but returned during the school year to MIT where he was an assistant professor. When Moise left BL for MIT, Capranica followed and carried out his PhD research in Electrical Engineering under the guidance of Goldstein, but was clearly influenced by the MIT culture, perhaps best exemplified by Frishkopf and his systems approach to the study of the ear and hearing. At the time, the MIT atmosphere was still reverberant with the seminal work of Lettvin, McCullough, Maturana and Pitts, published in the Proc. Inst. Radio Engr. 1959, entitled “What the frog’s eye tells the frog’s brain.” This was probably the earliest paper that looked at sensory systems (in this case the frog visual system) as having evolved to process biologically meaningful stimuli, that is, it first used what we now call the “neuroethological” approach. This idea so resonated with Bob and his colleagues that he spent much of the rest of his scientific career

championing and embellishing this concept that took the form of “What the frog’s ear tells the frog’s brain.”

For his dissertation research, he carried out what is arguably the most elegant dissertation research work ever completed in animal bioacoustics. This dissertation work, entitled “Evoked Vocal Responses of the Bullfrog”, was published in an MIT monograph (Capranica 1965) and instantly captured the praise of the entire research community in terms of its systematic and quantitative analysis, and conceptual elegance. Capranica showed that through well thought-out and carefully executed behavioral experiments, the salient feature in an animal’s complex vocal signal could be pinned down. In a single stroke, Bob raised the bar for research in bioacoustics forever, and transformed the field; quantitative behavioral analysis became the new standard.

In 1968, he joined the Section of Neurobiology & Behavior at Cornell University in Ithaca, New York, with a joint appointment in the Department of Electrical Engineering. He accepted John Paton, his first PhD student in 1969, and then four more students (Albert Feng, Martha Constantine, Joel Bradbury and Peter Narins) joined his group at Langmuir Lab in the Fall of 1970. With that cohort, plus his first post-doctoral fellow, Carl Gerhardt, the lab was off and hopping. During his tenure at Cornell, Bob mentored scores of graduate students and post-doctoral fellows. His influence on the field of neuroethology is difficult to overstate; his insight into sound communication is unparalleled. The esprit de corps among Bob’s students was always overwhelmingly positive, because he gave us total freedom to undertake dissertation work of our own choice. He encouraged us to think boldly and even unconventionally, and he provided whatever facilities and guidance necessary for successful execution of our dissertation research projects that covered a variety of different topics. A yardstick of success for a research scholar is often measured by the success of his or her students and postdocs. In this regard, Bob’s success has been enormous. Students and postdocs trained under him now are distinguished researchers themselves at institutions throughout the United States and around the world, making major contributions to the fields

of animal bioacoustics and neuroethology. Bob is a true giant in the field of animal bioacoustics.

In the summer of 1981, Bob organized, along with Jörg-Peter Ewert and David Ingle, a NATO Advanced Study Institute on “Advances in Vertebrate Neuroethology” in Kassel, Germany. The motivation for this meeting was to assemble, for the first time, those researchers studying vertebrates whose work embodied the principles of neuroethology that had been practiced for years by the invertebrate community. It was at this meeting that the concept of a society for neuroethology was born, and the attendees were unanimous in their support for Ted Bullock as the fledgling society’s first president. Some of the attendees at this “Proto” Neuroethology meeting, in addition to those already mentioned, were Franz Huber, George Pollak, Peter Marler, Mark Konishi, Walter Heiligenberg, Russ Fernald, Jim Simmons, Andrea Megela, Günther Ehret, Nobuo Suga, Uli Schnitzler, Carl Hopkins, Mimi Halpern, Ed Rolls, Wolfgang Walkowiak, Jo Ostwald, Peter Narins and others. Each of us left Kassel infused with great enthusiasm for founding the new Neuroethology Society, and Bob and his colleagues took on the task of editing the proceedings of this meeting (Advances in Vertebrate Neuroethology (J.-P. Ewert, R.R. Capranica, and D.J. Ingle, eds.) Plenum Press, London, New York, 1983). Following this meeting, and together with his wife Pat, Bob formed the Capranica Foundation with its principal goal of offering a monetary prize to the best neuroethological research paper published each year by a young investigator. Since the Capranica Neuroethology Prize was first offered, the Foundation has awarded this prestigious prize multiple times and as a result, it has become the premier prize in the field of Neuroethology. The previous winners include Ken Catania, Marcos Gridi-Papp, Anne M. Schneiderman, William N. Frost, Caroly A. Shumway, Michael S. Brainard, Eric T. Vu, Ari Berkowitz, Anthony Leonardo, Joseph A. Sisneros, Daphne Soares, Jörg Oestreich, and Claire N. Balint, among others.

Bob remained at Cornell until he retired to his home in Tucson, AZ where he and Pat still live today. He still maintains a deep interest in the Society he helped found, and especially in the young people

who demonstrate the enthusiasm and dedication to the field of neuroethology.



THE 2011 ISN CAPRANICA
PRIZE

The 2011 International Society for Neuroethology Capranica Prize goes to **Paloma T. Gonzalez-Bellido** in recognition of a paper judged to be most scientifically significant in the field of Neuroethology in 2010: Gonzalez-Bellido PT, Wardill TJ, Juusola M. (2011) Compound eyes and retinal information processing in miniature dipteran species match their specific ecological demands. *Proc Natl Acad Sci U S A*. **108**: 4224–9. <http://www.pnas.org/content/108/10/4224.long>

The Capranica Prize Selection Committee consisted of William Kristan, Kenneth Catania, and Christine Köppl. They reported that all of the applications were of very high quality, which speaks well for the Neuroethology research being conducted by ISN members.

Paloma T. Gonzalez-Bellido worked in the laboratory of Dr. Mikko Juusola in the Department of Biomedical Science at the University of Sheffield in the UK. She did an elegant study of the anatomy and physiology of the eyes of two flies, *Drosophila melanogaster*, the classic fruit fly, and *Coenosia attenuata*, a predatory fly that, despite being about the same size as the fruit fly, catches *D. melanogaster* on the wing. On her own, Ms. Gonzalez-Bellido decided that such a predatory fly must have specializations in its visual system, selected the predatory species to use, and found a source of them (greenhouses in Spain). From detailed electron microscopy and electrophysiological studies, she found that the spatial resolution of the *C. attenuata* eye is greatly improved by the dense packing of narrow ommatidia, and that the temporal resolution is extremely fast in part because the rhabdomeres in the *C. attenuata* eye are the smallest ever reported in a flying insect, so that the phototransduction reactions can take place at a high rate.

Her thesis advisor says of her, “Paloma is a very intelligent and passionate young scientist, who has a great desire to learn. She works hard for the ambitious goals that she sets for herself.... She is quite innovative, absorbing ideas from various sources and can come up with well-thought-through solutions to the problems.” The paper selected for this year’s Capranica Prize certainly highlights these characteristics.

As her prize, Paloma will receive \$1,000 and a travel award to the 2012 International Congress of Neuroethology in Maryland, where she will be presented with a plaque.

The original announcement of the Capranica Prize in May came days before Bob Capranica’s 80th birthday. In 1986, Bob and Pat established The Capranica Neuroethology Prize to provide an annual cash prize in recognition of an outstanding achievement or future promise in the field of neuroethology by young people early in their careers. This prize, which they established out of their own savings has meant so much to young investigators over the last quarter century. As of this year, the International Society for Neuroethology (ISN) has taken over financing and managing this prize, which will continue to bear the Capranica name in their honor. Bob was a pioneering member of the young field of neuroethology. Beginning in the 1960s he was able to link the behavior of frog communication to neurophysiology. Although common today, he introduced several novel research methods: spectral analysis of categorized calling songs, responses to natural and synthetic calling songs by the animals and by auditory afferents, among several other important innovations. His former students and post-docs form the backbone of much of the current International Society for Neuroethology. His influence both as a scientist and as a benefactor for this award has been extensive. So, it is appropriate that we continue to honor him by offering this prize in his name.

2011 Heiligenberg Travel Award Recipients

The Heiligenberg Travel Awards are named in memory of Walter Heiligenberg (<http://www.springerlink.com/content/q5w7049173523665/>), who was a pioneering neuroethologist. Walter made seminal contributions to understanding the neural mechanisms underlying the jamming avoidance response of weakly electric fish (see following article for additional information).

There were a number of excellent applications this year. Each \$700 award is given to ISN members who will be presenting their research at a relevant conference, for example, the Gordon Conference on Neuroethology (<http://www.grc.org/programs.aspx?year=2011&program=neuroeth>).

The recipients of the 2011 Heiligenberg Travel Awards are:

Sara Mae Stieb

Biozentrum der Universitaet Wuerzburg
Zoology II (Behavior Physiology & Sociobiology)
Advisor: Prof. Wolfgang Rössler

Julieta Molinas

Lab Neurobiologia de la Memoria
Universidad De Buenos Aires
Advisor: Daniel Tomsic

Lauren O'Connell

Section of Integrative Biology/University of Texas at Austin
Advisor: Dr. Hans Hofmann

Lucía Zubizarreta

Instituto de Investigaciones Biológicas, Depto de Neurofisiología
Advisor: Ana C. Silva

Eva Fischer

Colorado State University, Biology
Advisor: Kim Hoke

The Awards Selection Committee consisted of Ron Harris-Warrick, Heather Eisthen, Amir Ayali,

Gerhard von der Emde, Emanuel Mora, and Elke Buschbeck.



Walter Heiligenberg's Legacy Commemorated in Inaugural Lecture on Neuroethology

(modified from original article printed in 'This Week @ UCSD')

by Chris Palmer, UCSD, USA

What can the way birds sing to one another tell us about devastating illnesses such as Parkinson's disease, Huntington's disease, and addiction? Plenty, it turns out, given that the neural circuits involved in those ailments are quite similar to those circuits in songbirds' brains that control crucial aspects of songs used for social communication. This was the topic of the inaugural Walter Heiligenberg Lecture given on March 11 at the UCSD Skaggs School of Pharmacy auditorium by Dr. Allison Doupe, Professor in the Department of Psychiatry at the University of California at San Francisco.

The UCSD Division of Biological Sciences initiated the Walter Heiligenberg Lecture in recognition of Dr. Heiligenberg's outstanding accomplishments in the field of neuroethology. Heiligenberg, who studied animal behavior with Konrad Lorenz at the Max Planck Institute, was appointed Professor of Behavioral Physiology at the Scripps Institute of Oceanography at UCSD in 1973, where he remained until his untimely death in 1994. Over the course of his distinguished career, he made numerous contributions to the field of neuroethology, including a detailed description of the neural circuitry behind the jamming avoidance response of the weakly electric fish. This discovery was one of the first examples of an entire behavioral pattern whose neural basis could be explained from sensory input all the way to the motor output. He was also one of the early pioneers in the application of computational modeling to problems in behavioral neuroscience.

Heiligenberg's long-time colleague and close personal friend, Dr. Masakazu Konishi, and Dr. Stefan Leutgeb (the Walter F. Heiligenberg Professor of Neuroethology at UCSD and Director of the Heiligenberg Lecture Series), introduced Dr. Doupe. In his opening remarks, Konishi (Doupe's postdoctoral advisor at the California Institute of Technology) told the audience, including members of Heiligenberg's family, how proud Dr. Heiligenberg would have been that Dr. Doupe was giving this inaugural lecture.

Dr. Doupe's lecture, 'What songbirds can teach us about learning and the brain', started with an overview of the critical period in the learning of song and concluded with a summary of her research from the past several years dealing with unique circuits in the songbird's brain that modify song according to social context. These circuits connect the song-producing motor areas in the cortex with the basal ganglia, which is responsible for monitoring and regulating motor behavior. The basal ganglia is also a large source of dopamine, which is important for reinforcement learning. Disruptions to this type of learning may play a significant role in addictive behaviors. Doupe suggested that understanding the basal ganglia's function in modulating songs in birds might provide insight into imbalances in the human basal ganglia that lead to motor and cognitive diseases. She explained that this is because there are likely a limited number of algorithms that can be employed to regulate the activity of neural circuits such as the basal ganglia.

The primary subject of Doupe's studies is the zebra finch, a small perching songbird whose most attractive attribute for researchers is not its singing voice, which is far from mellifluous. Rather its short developmental learning period and relatively simple, repetitive songs make them ideal lab subjects. In isolation, the song of males is highly variable. However, in the presence of a female, the song of male zebra finches becomes very regular, with little variation upon repetition (a feature that females find strongly attractive). This switch in behavior according to context is described by a performance-practice hypothesis, which states that learned behaviors (such as singing) are practiced in some scenarios (e.g., in isolation) where trying new

things in search of the optimal behavioral output has few ill consequences, and performed to perfection in more important scenarios, such as in the search for a mate. Suggesting that this decrease in behavioral variability in rewarding situations is a general phenomenon, Doupe cited a study where non-human primates decreased the variability of eye movements to visual targets associated with rewards, but not for other targets.

Dr. Doupe went on to discuss her findings that a particular area of the basal ganglia called Area X regulates the variability in the male's song. In the presence of females, dopamine is normally released into Area X, but in experiments when dopamine is blocked and the male is placed with females, the male loses the ability to reduce the variability of its song. Likewise, when this area is damaged, the male loses the ability to stabilize its song in the presence of females. She drew a parallel between damage in Area X in birdsongs and damage in the basal ganglia in humans. When Area X in birds is damaged, there is an inability to stabilize singing. In humans, damage or degradation in the basal ganglia leads to an inability to stabilize motor behavior (seen in Huntington's disease) or cognitive functioning (seen in many psychoses). On the other hand, damage to LMAN, another area in the basal ganglia of birds downstream of Area X, leads to rigid, stereotyped singing. Parallels in humans to this type of damage include the rigidity of motor movements characteristic of Parkinson's disease and the cognitive rigidity observed in obsessive-compulsive disorder.

Dr. Doupe concluded that there is a somewhat delicate balance between the normal activity levels of the various areas of the basal ganglia, and that shifting this balance can lead to disease. Furthermore, studying the functioning of the basal ganglia in the control of birdsong can provide further understanding of these disease processes in humans.





ISN Executive Committee Meeting Summary

Highlights of the Minutes of the International Society for Neuroethology Executive Meeting June 27, 2011 Woods Hole, MA USA

Attendees: Paul Katz, President; Alison Mercer, President Elect; Martin Heisenberg, Past President (via teleconference); Karen Mesce, Secretary; Fred Delcomyn, Treasurer; Andrea Simmons, ICN Co-Chair Program Committee; Art Popper, ICN Chair Local Organizing Committee; Linda Hardwick, ISN-Allen Press Representative

Financial report: The ISN is financially sound. Specifics of the financial report were disclosed to the attendees. The ISN operates on an accrual vs. cash basis. Discussion gravitated towards a consensus that the ISN reserves should be maintained at an amount equaling 1 to 1.5 meetings.

Membership issues: The health of the Society is clearly based on the numbers of new members that join the Society. Membership dues were discussed at length. The Committee agreed that the \$30 Emeritus fee be waived. Membership for a Postdoc: \$60/1 year and \$100/2 year (Max of 4 years or two meetings).

Program ICN 2012 University of Maryland: There was lengthy discussion about the 2012 ICN with Andrea Simmons, ICN Co-Chair Program Committee and Art Popper, ICN Chair Local Organizing Committee - plans are moving along smoothly. Opening registration: March 1 through June 15 (for early registration).

Potential overlap of the 2014 Sapporo ICN with the Japanese Comparative Physiology and Biochemistry (JCPB) meeting: The pros and cons of this proposal were discussed at length. The EC committee decided that there would be benefits to having a one day of overlap between the two meetings. A letter was sent to Yoshitaka Oka of the JCPB's organizing committee that outlined our discussion.

Idea of shared Membership with other Societies: The committee discussed a proposal from the Society for Integrative and Comparative Biology to provide member rates at each other's meetings. Overall, it was felt that there were more problems than benefits, but more detailed proposals would be considered.

Web Committee-related discussion: Feedback from the Web Committee outlined the need for improvements to the ISN web site. The Web committee report was discussed and further action to revamp the website is planned.

Other issues: Travel Awards, Life Long Achievement Awards and the logistics of future meetings were discussed. Overall, we had a very nice meeting at Woods Hole and were sorry that Martin Heisenberg had to join us by teleconference.

June 27, 2011, K.M., ISN Secretary

ISN Membership Updates

Website:

<http://www.neuroethology.org/membership/benefits.php>

Membership Benefits:

- Right to organize symposia/mini conferences and congresses.
- Right to participate in and vote on various Society matters.
- Reduced registration fees for ISN congresses.
- Discounts on journal subscriptions.
- Bullock Visiting Lecture Program.
- Travel Awards, Young Investigator Awards, Prizes, and Fellowships available only to members.
- Regular ISN newsletter.
- Email list (i.e., listserver) for free broadcast emails to ISN members on topics relevant to neuroethology.
- Free ads for recruitment of academic, postdoctoral, and graduate job opportunities on ISN website and newsletter.

- Most importantly, you support the field of neuroethology.

PROPOSED REVISED MEMBERSHIP

- **Regular membership:** Two years, US\$160; one year, US\$90
For faculty members, and career research scientists or educators.
- **Student membership:** Two years, US\$50; one year, US\$30
Student memberships are available for up to 6 years. After the sixth year expires, or student status ends, individuals become eligible for Post-doctoral or Regular membership.
- **Post-doctoral membership:** Two years, US\$100; one year, US\$60
Individuals who do not have faculty positions are eligible for post-doctoral membership for up to 4 years.
- **Emeritus membership:** no fee
Regular and special members who are retired from their primary positions may apply for emeritus membership.
- **Lifetime membership:** US\$1,000
Regular members may opt to convert to lifetime membership by making a one-time dues payment.
- **Special membership:** Individuals, including students, wishing to apply for this category (which is limited to members from economically impoverished nations) should submit a written request to Linda Hardwick (lhardwick@allenpress.com). If granted, the annual dues shall be waived for a period of 3 years.

PROPOSED CHANGES TO THE BYLAWS Membership

The Society shall consist of six types of members: *regular*, *special*, *life*, *post-doctoral student*, and *emeritus*. Application for membership in one of these categories shall require submission of a completed, current application form. Applications will be evaluated for authenticity and appropriateness and approval granted by a Membership Committee that is a sub-committee of the Executive Committee.

- Regular members.* Scientists and Educators who express interest in the purpose of the Society. Regular members may vote and hold office in the Society.
- Life members.* Regular members may opt to convert to life membership by paying the one-time dues established for this category of membership. Life members enjoy the same privileges accorded to regular members.
- Special members.* Scientists qualified for regular membership but unable, owing to economic and/or political conditions in their countries of residence, to pay regular dues. Applications for this category of membership shall be judged by the Executive Committee on a case-by-case basis, with respect to published lists of developing and economically disadvantaged nations. Dues of Special Members may be paid on a voluntary basis by other members of the ISN, or may be waived by the Executive Committee. Special members may vote and hold office in the Society.
- Post-doctoral members.* Individuals who are not faculty members and express an interest in the purpose of the Society. Post-doctoral membership requires that mentors or sponsors are active members of the ISN. Post-doctoral members may not vote or hold office except as *ad hoc* members approved by the executive committee.
- Student members.* Bona fide undergraduate or graduate students doing research interested in the purpose of the Society. Student membership requires that mentors or sponsors are active members of the ISN. Student membership shall terminate at the end of the calendar year in which student status terminates, at which time such individuals become eligible for post-doctoral or regular membership according to the same criteria and procedures that apply to other scientists. Student members may not vote or hold office except as *ad hoc* members approved by the executive

committee.

- f. *Emeritus members.* Regular and special members who are retired from their primary positions may apply for emeritus membership. Emeritus members enjoy the same privileges accorded to regular members.

CHANGES TO THE BYLAWS: RATIONALE

Addition of post-doctoral membership: This category was added to encourage the participation of younger researchers and increase the continued membership in the society. If membership dues are paid by Primary Investigators, it is hoped that a less expensive category would make it more cost-effective for them to pay for these young investigators.

Removal of conditions for membership: Currently new members are required to submit a *cv*, three papers, and endorsement of a regular member. The wording of the membership criteria sounds exclusionary, being limited to individuals conducting “meritorious research”. These criteria are superfluous and create unnecessary barriers for broader membership such as by individuals who do not know other members or who are not currently conducting research cognate to neuroethology. We should also encourage Educators to join the society, not just research scientists.

Committee membership: Post-docs and students should be allowed to serve as *ad hoc* members of committees.



2011 NEUROETHOLOGY GORDON RESEARCH CONFERENCE

The Co-Chairs (Jochen Zeil and Susan Fahrbach) of the 2011 Gordon Research Conference in Neuroethology are looking forward to an exciting meeting. View the program at:

<http://www.grc.org>

The 2011 Gordon Research Conference in Neuroethology will be held August 14-19, 2011 at Stonehill College in Easton, Massachusetts, USA. The conference will be preceded by a weekend Gordon Research Seminar in Neuroethology designed to foster professional development and networking among graduate students and post docs conducting neuroethology research.

http://www.grc.org/programs.aspx?year=2011&program=grs_neur

Please share this information with your colleagues, graduate students, and post docs.



MATERIAL FOR FUTURE NEWSLETTERS

Send news, job advertisements, meeting announcements and other related information for the next newsletter to the ISN secretary, [Karen Mesce \(mesce001@umn.edu\)](mailto:mesce001@umn.edu). All materials should be sent via email.

Advertisements for jobs and graduate/postdoctoral positions should be no more than 150 words.

Suggestions for *feature articles*, including autobiographical sketches, research group reports, and Neuroethological Viewpoints, should also be sent to the ISN secretary. Please do not submit full articles of this type without a response from the Editorial Board. Feature articles may be up to 1,500 words in length.

We also welcome research commentaries, book reviews, and other material that might be of interest to the ISN community. These should be no longer than 450 words in length, and should only be submitted after consultation with the editor.

