



# INTERNATIONAL SOCIETY FOR NEUROETHOLOGY

Newsletter  
March 2001

International Society for Neuroethology  
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## PROPOSED CHANGES TO BY-LAWS

As mentioned in the last Newsletter, your Officers and Councillors, after careful consideration and approval, would like to propose the following change in ISN's By-laws. Essentially the changes are minor and are to help the Treasurer conform with the reporting requirements of the Inland Revenue Service (IRS) in the USA where our Society is registered, and to ensure smooth transitions between office holders. Our

By-Laws require us to announce these changes to you and then to hold a ballot as stated in paragraph 11 of the By-Laws. "On recommendation by a majority of the Council or by a

written proposal signed by not fewer than fifty regular members, these Bylaws may be adopted or, thereafter, amended by a simple majority of votes cast in a mail ballot of voting members. Written notice of the text of proposed amendments must be sent to all members not fewer than sixty days prior to the mailing of the ballot. Changes in the By-laws shall go into effect upon closing and counting of the ballots." The amendments were sent out in the last Newsletter, thereby fulfilling the notification requirement.

We do want to appraise you of one additional change in our by-laws that was suggested by our management group, Panacea Associates. They noted the above statement about voting, and particularly the phrase "...votes cast in a mail ballot of voting members." They suggest, and the Officers totally concur, that we should change this to "...votes cast in a ballot..." The rationale is that it is becoming increasingly possible to have secure votes in other means including over the web and by email. Indeed, this has been done by other societies already, and the responses to the votes go up considerably. While we are not suggesting that we will change to non-mail ballots right now, this small change in by-laws will give us flexibility in the future without having to come back to members for another mail vote. Note, in the changes listed below, the last line of this paragraph is also changed to reflect the possibility of using other formats for ballots.

The ballot for the by-laws change are included on a separate page of this newsletter, and the specific items in the changes, along with the rationale, is repeated below

We would like to ask that all members tear out the ballot and mail to the address on the form. We could not include an envelope due to cost and difficulty in including it in the Newsletter. Ballots should be received by Panacea Associates *no later than May 15, 2001*.

#### I. Item 6, *Executive Committee and Officers of the Society*

**Current By-law:** Elections to these offices shall take place by postal ballot *within six months* after the International Congress.

**Proposed Change:** Elections to these office shall take place by postal ballot *by the end of the calendar year* of the International Congress.

**Current By-law:** The terms of office of the Secretary, Treasurer, and new President-Elect shall commence *immediately after an election*.

**Proposed Change:** The terms of office of the Secretary, Treasurer, and new President-elect shall commence *at the end of the calendar year of the ISN Congress*. *However, the outgoing Treasurer shall work closely with the incoming Treasurer through May 15<sup>th</sup> of the following year and assume the primary responsibility for filing tax reports to the United States Internal Revenue Service for the year of the Congress.*

**Reason for Change:** The current six-month latitude during which elected office can begin is unnecessary and causes difficulties for elected officers, especially the Treasurer. Because the International Congress ordinarily takes place during late summer, the new term of office can theoretically begin before or after the end of the calendar year. IRS reporting requirements and the amount of work involved with Congress finances make it much more reasonable to tie the terms of office to the end of the calendar year.

#### II. Item 8, *Congress Committees*

**Current By-law:** Each International Congress shall be organized by an International Congress Committee.

This Committee shall be responsible for planning and implementing the scientific and social programs of the next International Congress, as well as for fund-raising in support of that Congress. A Local Organizing Subcommittee of the International Congress committee shall be responsible for all local arrangements for the Congress. The chairpersons and membership of the Committee and its Subcommittee shall be determined by

from the last Newsletter. *Note that the ballot refers to items discussed below by number but does not repeat the changes.*

the Executive Committee of the Society in consultation with the Council.

**Proposed Change:** The International Congress shall be organized by the Congress Program Committee and the Local Organizing Subcommittee according to ISN's policies for Congress management. The Program Committee shall be responsible for ....., whereas the Local Organizing subcommittee shall be responsible for..

**Reason for Change:** The difficulty of organizing and providing a stable financial base for the International Congress, the burden that this places on the Congress Committees, and the need for stricter accounting procedures for IRS reporting purposes have all necessitated that a formal set of guidelines for Congress management be drafted by the Executive Committee. In accordance with these guidelines and how the duties of the two Congress committees have evolved, we are also proposing that the names of the committees be changed to reflect their charge more accurately.

#### *Item 11: Amendments to By-Laws*

**Current By-law:** "On recommendation by a majority of the Council or by a written proposal signed by not fewer than fifty regular members, these Bylaws may be adopted or, thereafter, amended by a simple majority of votes cast in a mail ballot of voting members. Written notice of the text of proposed amendments must be sent to all members not fewer than sixty days prior to the mailing of the ballot. Changes in the By-laws shall go into effect upon closing and counting of the ballots."

**Proposed Change:** "On recommendation by a majority of the Council or by a written proposal signed by not fewer than fifty regular members, these Bylaws may be adopted or, thereafter, amended by a simple majority of votes cast in a ballot of voting members. Written notice of the text of proposed amendments must be sent to all members not fewer than sixty days prior to the ballot being made available to members. Changes in the By-laws shall go into effect upon closing and counting of the ballots."

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#### 2001 ISN CONGRESS UPDATE

As our Sixth International Congress is fast approaching (July 29th to August 3) we take this last opportunity to convince those of you who are still undecided that it is well worth while to register for the conference and to come and enjoy Bonn this summer (deadline for abstract

submission is April 1st, deadline for preregistration is June 1st). As you hopefully know already, there will be eight plenary lectures, plus four lectures given by the young investigator awardees whom we wish to highlight early in their careers. In addition there will be exciting evening lectures by Gerhard Roth and Dean Hamer. We have devoted plenty of time for poster sessions, and posters will be on display for the entire week. For social gathering, we offer a boat cruise on the river Rhine and an evening poster session with red and white German wine. There will also be 16 Symposia, each with four or five speakers apiece, on a wide range of exciting topics. A lecture hall will be available between official sessions at which anyone can give a talk. You can reserve 15 minutes of time on a sign\_up board in front of the room to present your "latest results." Please visit our web site ([www.uni-bonn.de/ICN2001](http://www.uni-bonn.de/ICN2001)) to glance through the complete program, to submit your abstract, and to register. In case of special questions you can contact us directly via e\_mail ([ICN2001@uni-bonn.de](mailto:ICN2001@uni-bonn.de)). Plan to attend the ISN\_meeting if you possibly can and notice that we have kept registration fees really low, in particular for students (member \$190, nonmember \$265, students \$60). We suggest that you make your travel plans early, because flights and hotels may fill up quickly.

Horst Bleckmann

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**MEETING AWARDS** Malcolm Burrows  
President, ISN

**Young Investigator Awards**

I offer my congratulations to the following four winners of our Young Investigator Awards. They are:

Dr. Andreas Nieder, Department of Brain and Cognitive Sciences, MIT, Cambridge, MA, USA  
[nieder@mit.edu](mailto:nieder@mit.edu)

Dr. Elke Buschbeck, Department of Neurobiology and Behavior, Cornell University, Ithaca, NY, USA  
[ekb8@postoffice.mail.cornell.edu](mailto:ekb8@postoffice.mail.cornell.edu)

Dr. Stephanie White, Department of Physiological Sciences, UCLA, Los Angeles, CA, USA  
[swhite@physci.ucla.edu](mailto:swhite@physci.ucla.edu)

Dr. Lee Morris, Department of Biology, Emory University, Atlanta, GA, USA [lobsterlady@mail.com](mailto:lobsterlady@mail.com)

The panel (Malcolm Burrows, University of Cambridge, UK, Ken Catania, Vanderbilt University, USA, Avis Cohen, University of Maryland, USA, Alan Gelperin, Bell Laboratories, USA, Mark Konishi,

Caltech, USA) who assessed the 23 applications had a very difficult task to select from such a high standard of applicants.

Each award is \$1000. The winners will also give plenary talks at the congress on Tuesday July 31st. They promise to be stimulating and exciting presentations. Don't miss them!

**Travel Awards**

The society made \$8000 available to help offset the costs of attending the congress. Again the panel had the extremely difficult task of selecting from the 44 applications. Awards were made to the following 16 people.

G. N. Andrianov, Pavlov Institute of Physiology, Russian Academy of Sciences, St Petersburg, Russia

Bruce Carlson, Department of Neurobiology and Behavior, Cornell University, Ithaca, NY, USA

Micheal Dent, Integrative Neuroscience, University of Maryland, College Park, MD, USA

Isabelle George, University of Rennes, France

Abbas Haghparast, Department of Physiology, Kerman University, Kerman, Iran

Aaron Johnson, Department of Environmental and Evolutionary Biology, University of Glasgow, Glasgow, Scotland

Allan Kalueff, Centre for Physiology and Biochemical Research, Kiev, Ukraine

Aleksey Malyshev, Institute Higher Nervous Activity and Neurophysiology, Russian Academy of Sciences, Moscow, Russia

Mark Masino, Biology Department, Emory University, Atlanta, GA, USA

Barbara Musolf, Department of Biology, Georgia State University, Atlanta, GA, USA

Sanjay Sane, Department of Integrative Biology, UC Berkeley, CA, USA

Shubna Shanbhag, Tata Institute of Fundamental Research, Mumbai, India

Ana Silva, Instituto Clemente Estable, Montevideo, Uruguay

Daniel Tomsic, Laboratorio Neurobiologia de la Memoria, Ciudad Universitaria, Buenos Aires, Argentina

Maria Riazanova, Consciousness Research Institute, Moscow State University, Moscow, Russia

Yael Zilberstein, Department of Zoology, Tel\_Aviv University, Tel\_Aviv, Israel

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**CALL FOR NOMINATIONS FOR OFFICERS AND COUNCIL**

Malcolm Burrows  
President, ISN

Our society is administered by a President, a President-elect, a Past President, secretary, and treasurer and has 14 councillors who together with the officers are responsible for decision making. Each officer serves for a period of one congress interval and councillors for two. We are seeking nominations for the President-elect, treasurer, secretary and seven councillors. All members are invited to submit nominations for any office. Please send any nominations to me (mb135@cus.cam.ac.uk) as soon as possible and no later than June 28<sup>th</sup> 2001. Please include a list of your nominations and an indication that the people you have nominated are willing to stand for office.

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### NEUROETHOLOGY LISTSERV

**R**eminder: The ISN maintains a Listserv. Any member may join the Listserv and use it to broadcast announcements, requests for information or materials needed for research, etc. Members who have joined the Listserv receive all notices posted to it, including meeting announcements, advertisements of job openings and postdoc positions, fellowships, etc. To join the Listserv or update your E-mail address for its messages, please send an E-mail to John Hildebrand at <jgh@neurobio.arizona.edu>.

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### 2000 ISN ANNUAL FINANCIAL REPORT

Prepared by Sheryl Coombs, Treasurer as of  
December 31, 2000

<b>Balance as of 12/31/99:</b>	<b>\$228,290.01</b>
<b>Revenues in 2000:</b>	<b>\$41,571.46</b>
Investment Portfolio Growth*:	\$16,704.54
Bank Interest:	\$91.17
Membership Dues:	\$24,525.00
Donations:	\$8.00
Conference	\$0.00
Other	\$242.75
<b>Debits in 2000:</b>	<b>(\$19,001.90)</b>
Operating Expenses	(\$19,001.90)
Conference Expenses	\$0.00
<b>New Balance as of August 31, 2000:</b>	<b>\$250,859.57</b>
<b>Total Assets - Liabilities:</b>	<b>\$250,859.57 *</b>
Growth in Market Value since 12/31/99	

### NEUROETHOLOGY AT THE UNIVERSITY OF TEXAS: CONTINUING THE TRADITION

Harold Zakon

[H.Zakon@mail.utexas.edu](mailto:H.Zakon@mail.utexas.edu)

The University of Texas at Austin has a historic and strong tradition in Neuroethology. The tradition began with Frank Blair's pioneering work on the evolution of amphibian vocal communication, still a major focus of work here, and Jim Larimer's studies of motor control in crayfish. Each of them contributed to important foundations of contemporary behavior and neurobiology. Contrary to the monolithic view of his day that only physical barriers underlie speciation, a view dogmatically propounded by Ernst Mayr, Blair emphasized the potential role of behavior in speciation. Larimer debunked the simple pleasing concept of the "command neuron" and showed us that most such purported neurons are, in reality, complexly interconnected and function in networks.

Over the years more faculty joined the then Zoology Department, thereby strengthening this tradition. We have recently reorganized our Biological Sciences and we neuroethologists are now in two groups: the Section of Neurobiology and the Section of Integrative Biology.

Our current emphases are on animal communication, sensory systems, and hormonal control of behavior, primarily in vertebrates. The animal groups that are best represented here are the "ichs and herps," although a few labs study mammals. While there is currently little invertebrate neuroethology on campus, there are a number of laboratories studying insect behavioral ecology. As befits a contemporary group, we use a diverse array of methods including behavioral, anatomical, electrophysiological, biophysical, and molecular tools, and collaborate with colleagues across campus in a variety of disciplines.

### What we do

George Pollak's lab focuses on the integration of information evoked by complex signals in the auditory midbrain of bats. In collaboration with Frederick Theunissen of Berkeley, George and his students have been mapping complex spectro-temporal receptive fields (STRFs) of auditory neurons to echolocation and social communication signals in Mexican Free-tailed bats with reverse correlation. The STRF provides an encapsulated picture of the spectral and temporal features of both excitation and inhibition in each neuron. The role inhibition plays in generating the STRF is evaluated by observing the changes produced by the iontophoretic application of drugs that specifically block GABAergic or

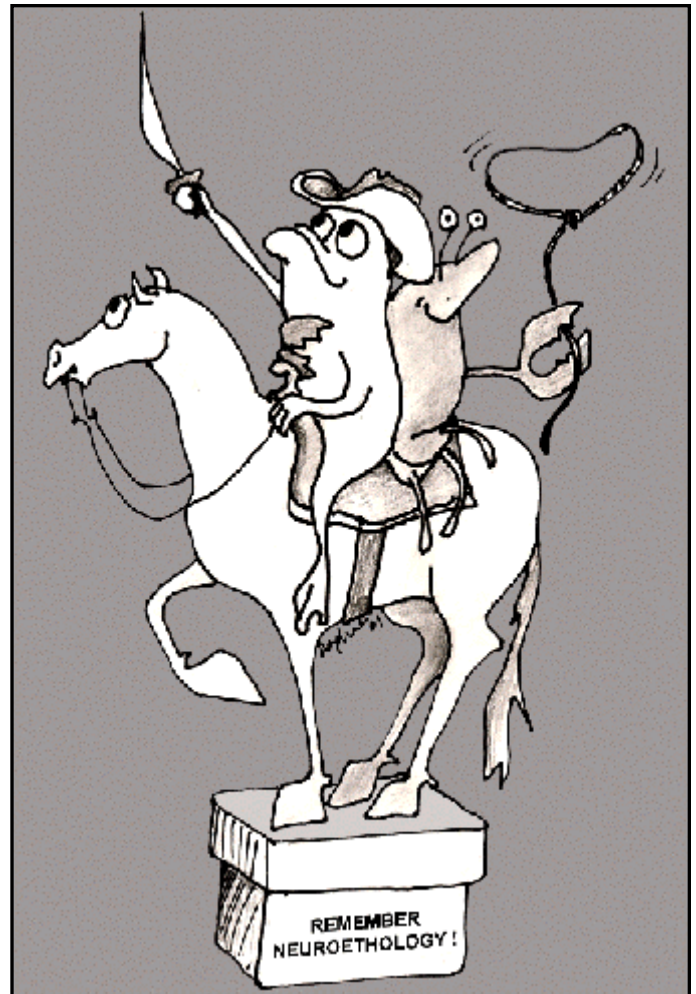
glycinergic inhibition. Thus, George and his students not only study how neurons respond to complex signals but they also determine what rules the auditory system employs to create response selectivity and how each lower nucleus contributes to the establishment of those rules. The Pollak lab obtains their bats locally Austin has the largest urban bat colony in the U.S., which is a point of local honor!

Research in Mike Ryan's lab is directed toward understanding the mechanisms and evolution of animal communication systems, especially those involved in reproductive behavior. Mike's group wishes to understand how these mechanisms evolve and how they direct and constraint patterns of evolution. Ryan's lab studies acoustic communication in frogs and visual communication in fishes. Mike has been using some innovative tools lately: artificial neural networks to simulate the evolution of communication systems and video animation to dissect visual displays to determine salient stimulus features. With the first method Mike

Walt Wilczynski's lab investigates the interactions of communication signals, behavior, and hormonal states as they lead to the expression of social behavior in amphibians and reptiles. One program investigates the co\_evolution of signal production and sensory systems by examining sex differences, geographic variation within a species, and species differences in communication system. A second investigates the role of various CNS neurochemical systems, particularly peptides and monoamine neurotransmitter systems, and their interactions with steroid hormones in controlling reproductive and aggressive social behavior. A new emphasis is on the plasticity these systems show in response to social experience, and how these may induce plasticity in limbic brain regions controlling behavioral and endocrine responses to social signals. A recent study showed an elevation of a variety of steroid hormones when male frogs were stimulated by nightly exposure to tapes of chorusing conspecifics but not to tapes of noise with the same frequency spectrum as the frog calls. In other words, the neuroendocrine system was driven by the fine acoustic structure of the signals, not just their frequency content.

Harold Zakon's lab uses weakly electric fish to study the plasticity of neural mechanisms underlying behavior. His lab focuses on hormonally\_induced plasticity in ionic currents in the electromotor system. Recent work includes studies of how steroid hormones modulate sodium and potassium currents that generate a sexually dimorphic electric organ discharge (EOD), and molecular cloning of the genes for these ion channels to understand how they are transcriptionally regulated. They have also extended classical work on the

was able to test hypotheses about the evolution of frog calls based on the frog's phylogenetic relationships. Using the latter method he has determined that different components of very similar visual signals are most salient for different species and populations of swordtail fish.



jamming avoidance response; this is a response whereby a fish transiently shifts its EOD frequency to a new value when it is "jammed" by the EOD of a neighboring fish of a similar EOD frequency. Zakon's group has found that exposure of a fish to an

*Daphne Soares, NACS, U Maryland*

EOD mimic stimulus that elicits a jamming avoidance response for tens of minutes, resets the EOD frequency of the fish to the new value for many hours. The importance of this result is not only that it adds a new dimension to the jamming avoidance paradigm, but also that it illustrates how synaptic activation via NMDA receptors (these are activated during the jamming avoidance response) can influence postsynaptic conductances to adaptively change a neuron's electrical excitability.



David Crews' lab studies the diversity and evolution of brain mechanisms controlling reproductive behavior and the development and function of sex differences. His lab uses mainly reptilian models such as the green anole lizard, the red-sided garter snake whose reproductive behavior is activated by seasonal temperature changes rather than sex hormones, and two species of whiptail lizards, one unisexual and the other parthenogenetic or all-female, and the leopard gecko with temperature-dependent sex determination. The work from his lab has revealed a great diversity among vertebrates in reproductive behaviors and the neuroendocrine mechanisms underlying these behaviors. Recent work addresses the long-held idea that progesterone is a "female-specific" hormone with no function in males. They have found that progesterone is vital to the display of male copulatory behavior in lizards as well as in mice and rats and, further, that androgen and progesterone synergize in males much like estrogen and progesterone synergize in females to facilitate sexual receptivity. They have extended this work on the role of the progesterone and its receptor in the regulation of male sexual behavior, in male mice lacking the progesterone receptor (knockouts). These animals show deficits in their mating behavior and sensitivity to androgen treatment. This work has led to studies of the role of dopamine, a neurotransmitter implicated in both male and female sexual behavior since the progesterone receptor can be activated by dopamine independently of its natural ligand progesterone.

### Research Interactions and Collegiality

One of our strong points is the interactive and collegial contacts between laboratories. For example, the Ryan and Wilczynski labs have a long-standing collaboration on the evolution of communication signals in amphibians. Students interact between the Crews and Wilczynski lab. The Zakon lab collaborates with Nigel Atkinson, a Drosophila molecular biologist, and David Hillis, a molecular systematist, on the evolution of ionic channels in vertebrates. With these extensive and friendly interactions, the movement of students and postdocs between labs is fluid. This helps graduate students and postdocs to be interdisciplinary, well-rounded, independent, and able to develop and pursue ideas in a more comprehensive way.

Besides lab meetings, we have weekly journal clubs in Neurobiology, in Evolution, Ecology and Population Biology, and in Reproductive Physiology. We also have a seminar series in these areas as well. So many seminars, so little time!!! There are other groups on

campus to which some of our members belong and with which we interact. These include a Center for Vision, a new Center for Computational Biology, and the Institute for Neuroscience.

Last, we offer a number of courses related to neuroethology: Mike Ryan and Walt Wilczynski offer an Animal Communication course and laboratory, Harold Zakon teaches a seminar on Hormones and the Brain. Each of our labs is well-funded, typically by NIH or NSF, and there is an NIMH training grant in "Neurobiology & Behavior" administered by David Crews.

For more information on the research programs of our faculty, the Sections of Neurobiology or Integrative Biology, and our graduate programs in Neuroscience or Evolution, Ecology and Behavior, see:

<http://www.biosci.utexas.edu/neuro/>, and  
<http://www.biosci.utexas.edu/ib/>.

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## "FIELD" BEHAVIOR Ed Kravitz

special columnist to the ISN newsletter

[edward.kravitz@hms.harvard.edu](mailto:edward.kravitz@hms.harvard.edu)

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**Preface** With Art Poppers' enthusiastic support and encouragement, I have been writing these columns for about a year now. When I started I wasn't sure that anyone actually would read the essays. With recent responses from colleagues, though, I am delighted to find that these writings are being read, they have an impact, and they are being used in creative ways. One ISN member made copies of "Same old, same old" and distributed them to members of her department. Via this route, I received a wonderful supportive e-mail from one of her colleagues. Another ISN member distributed copies of the same essay to an NSF review panel. A sympathetic chord was struck in a German colleague by the same essay who felt that work on sleep in insects was greatly under-appreciated by "the court of prevailing opinion." Yet another colleague distributed copies of one of the essays to students in her classes.

To all of you, I say thank you, first for reading the essays, then for telling us that you find them to be of interest, and finally for your support in distributing them to a wider audience. For people who haven't communicated with us yet, please do let us know how you respond to these essays--Art took a big chance in asking me to write a regular column for the ISN Newsletter, and both he and I would love to know whether you find it worth reading.

### **"Prizes, Prizes, Prizes"**

This was going to be a very different essay. Or at least, my conclusions were going to be very different when I started this about ten years ago, than what I think they will be now (you see, I'm still not sure how this will end). The essay had a different title then too ("Attacking the Roots of Darsee\_ism"), and was going to deal with the insidious corruption of students accepting prizes early in their careers, for scientific studies that might only in small part be their own work. My desire to write such an essay was peaked by serving as a plenary lecturer (and it turned out, as a judge too) at a conference of medical students engaged in research. Maybe I should start this essay with where I was then. Here's a somewhat edited version of the earlier essay.

*I hate to see young minds perverted. Let me explain. Last spring (actually a decade ago) I was invited to speak at a regional meeting of medical students engaged in research (The Eastern Student Research Forum). The faculty advisor to the student organizers invited me because there were to be many neuroscience presentations, and because he knew of my interests in graduate education. He added that a neuroscience prize was to be awarded, and that my evaluation would be important in the selection of the winner. At that I told him I wasn't interested. I suggested further that they use the prize money for a glitzy reception for the visiting students and the local neuroscience community, and that they award fancy certificates of participation to all students delivering talks. His response was that this would be done, so I agreed to attend. Upon my arrival, however, I was handed a large packet of judging forms, and found myself included among the many student and faculty judges making up the bulk of the audience at the talks (no neuroscience prize was awarded, but many others were).*

*I should begin by saying that I thoroughly enjoyed the company, courtesy and dedication of the student organizers of the forum. Planning and running the meeting was a tremendous effort involving much time, the raising of many thousands of dollars, advertising over the country, reviewing and accepting the 100 papers that were presented, publishing an elegant Program and Abstract volume, organizing meals, a hospitality lounge and beach parties, hosting and toasting invited guests, and in general, fretting and worrying over every detail of the enterprise. Despite these enormous efforts, however, I felt that there were serious failures of the meeting.*

*One was in attendance at the sessions. At the plenary opening session and at the Neuroscience MiniSymposium that I was involved with, I looked round the room and counted the students in the audience. Perhaps 10 or 15 were in the room. For many students,*

*this was their first "national" exposure. Accordingly, their talks had been honed to a fine edge, but they were expounded to almost empty, dimly lit rooms, to mild applause of their peers, and to questions of numerically inclined judges. I could not help but contrast that response with what happens at another meeting I regularly attend, The East Coast Nerve Net Meeting held at the Marine Biological Laboratory in Woods Hole, MA. At Nerve Net undergraduate and graduate students often deliver their first formal scientific presentations. Here, the rooms are full of students, all anxiously waiting their turns on the podium. Here, even the feeblest efforts at jokes are laughed at, and loud sustained applause, interested questions, and many discussions over the two days of the meeting are the rewards for finishing. Even more important, a genuine sense of community grows among the participants. And of course, no prizes are given out. At the Forum, I sensed little sharing of joy and excitement at the nascence of a peer. I suspect that the main reason anyone was there was to perform for the judges to win the regional competition, so that one might go on to win the national competition, so that one might go on and on to winning more and more prizes and competitions, so that ultimately one might get the BIG JOB at Harvard, or Yale, or Stanford. Has research become so thoroughly imbued with an Academy Awards, Miss America, Pass, Punt and Kick, Emmy, Oscar, Nobel Prize mentality, that the important rewards are a cluttering of ones shelves with dusty reminders of just how good you are? Or perhaps of just how good you are at winning. No wonder the other student presenters were not there—no wonder the mild applause. With loud applause the other guy might win. If a carrot is required to interest a student in a research career, then perhaps that bunny doesn't belong in a research laboratory.*

*There is little doubt that students labored many hours on their research projects, and that they truly understood the meaning of their experiments. Nonetheless, there is equally little doubt that at this level, the scientific import, the magnitude and scope of the project, and even the quality of the presentation, may be far more a reflection of the mentor than of the student. Should students be rewarded because they are lucky enough to have selected a good or a fast\_track science mentor? Should students "lose" and face discouragement because they happened to pick a less distinguished mentor? Even worse than the lack of peer support, was that in at least two of the presentations, data that made the results less dramatic, were left out of the talk. This was brought out in the questions following the talks. But why was the data left out? What reward, other than winning, was to be gained by that action, and who counseled the students in that direction? The sad thing is that meetings of this type should be places where young researchers begin meeting what will be their life\_long friends, associates, colleagues*

and supporters, all sharing in a common quest: the gathering of scientific knowledge.

*Flogging a student forum is not my purpose. Prize\_gathering meetings of this type are symptoms, not the disease. Methods of motivating and training scientists are the issues, and learning how to turn young minds to the challenge and excitement of research and discovery are the challenge. Somehow or other, winning of prizes does not seem to fit within the list of requisites needed to become a creative scientist.*

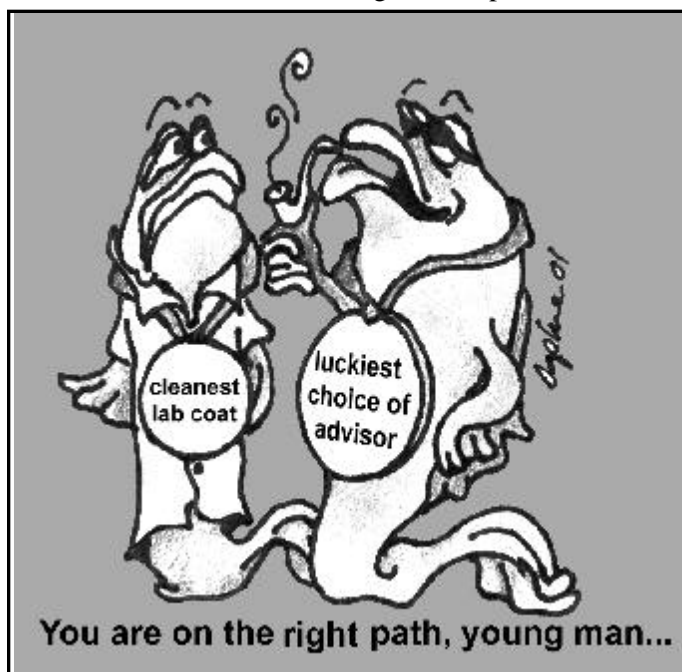
*Daphne Soares, NACS, U Maryland*

*I keep searching for the logic in the "prize mentality" that so pervades the medical establishment I am a part of. At a Boston Society for Neurology and Psychiatry Executive Board meeting a number of years ago, I questioned the awarding of prizes during the one evening a year at which residents present their research to the Boston medical community. In rejecting my suggestions for using prize funds in more creative ways, it was patiently explained to me just how important these prizes were on the C.V.'s of young doctors on their way up the academic ladder. Of course, prizes loom large at later points in academic careers as well. It is painfully clear that some of my peers consider not their scientific accomplishments, but the Nobel Prize, which they actively campaign for, as the crowning glory of their research careers. Swedish colleagues delight in tales of scientists whose every trip to Europe is accompanied by along\_the\_way stopovers and seminars in Stockholm. A serious problem with awards of this type, of course, is that in singling out individual or small numbers of scientists for the prizes, the essential contributions of others equally deserving of the prize are ignored. (A most egregious example of this comes in this year's award focusing on dopamine neurons and Parkinson's Disease, and the leaving out of Oleh Hornykiewicz from the group of awardees [see Science 291: 567-569, 2001.]). There is virtue in these awards, however, in that they make public figures of otherwise faceless scientists in our media\_dominated society. It is nice, even for a short time, to have headlines and network newscasts dominated by individuals engaged in intellectual pursuits of benefit to mankind rather than by sordid sex scandals, cost overruns on Big Digs or field goal percentages.*

That's the essence of the "where I was then" part of this essay. So why and how did my position change? I guess my enlightenment began with my first time acceptance of a wonderful, young, high school student in my laboratory a number of years ago. Rachel came to visit me with a lovely write\_up of a set of experiments she had done in the basement of her home, in which she injected crayfish with serotonin to observe its effects on fighting behavior. Mostly, she killed the animals with overdoses of the amine. But, the way Rachel wrote the

work up having read all our papers beforehand, her excitement about the work, and her boldness in first doing the experiments and then in coming to an "expert" in the field to show what she had done, all contributed to my making an on the spot offer to her of a summer position in my laboratory. Important for my education was the fact that this had been Rachel's Science Fair project for her high school Biology class.

Rachel is now a Harvard College sophomore. During the two summers and the many weekends she worked with us before college, Rachel did experiments (that did work this time around) that generated valuable data for our research efforts. She was the one who showed that long\_term components exist in the memory of fight\_induced changes in social status. Along the way, Rachel, who also is an accomplished musician, made a wonderful video of lobsters fighting to music. This has completely replaced what Robert Huber and I thought was an excellent video showing the components that



make up agonistic behavior in lobsters. Rachel felt that without music, the video was dull. With my full support Rachel presented her results in our department, at the Nerve Net meeting, and at the Society for Neuroscience annual meeting. In all cases I suspect that she is probably the youngest person ever to present a talk in those venues. Again with my support, and here is where the relevance to the essay becomes apparent, she also presented her results at regional and national competitions, many of which involved substantial cash prizes. It's probably fair to say that the cash prizes, and a substantial scholarship from the college, are what allowed Rachel to attend Harvard College. So is it only the money side of the competitions that has changed my views? I hope not.



I've asked Rachel, and other students who have grown up in the world of science competitions, whether science fairs have played an important role in their career choices: the answer is invariably "yes." That is true whether the students were "winners" or "losers" in the competitions. There are complaints, of course, about the mechanics of the competitions. The most common is that the "playing field is not level." Students who work in college or university laboratories have distinct advantages in the import of the project, the quality of the scientific work, and the presentation itself, over students who work only on projects suggested by their Biology teachers. Judging is not uniform and sometimes is distinctly unfair, for example with Biology teacher judges sometimes being particularly harsh to students from competitor schools. Still, the process seems to work in that addressing interesting challenging questions and juxtaposing that with serious, but friendly competition, does seem to turn young people on to science. Leveling the playing field can be dealt with, and mechanisms can be implemented for ensuring that important public rewards are offered to all students willing to take their time to do science.

So how do I end this essay? I still don't like prizes. I think they foster competition not cooperation, inflate egos, and even in the best of cases, end up unfair. Still, my working through this has helped me see some of their virtues, which can be substantial. After all, wouldn't it be great if students doing science projects were seen in the same hallowed glow as athletes? Wouldn't it be even greater if the heros and heroines of future generations weren't selected only on their shooting percentages from 3\_point range or the artistry of their slam\_dunks? OK then, I concede. Let's have prizes, lots of them, and let's advertise in very public ways that the people winning those prizes are doing things important for the future of mankind. I still don't think, however, that prizes ever should be used as distinguishing criteria for who gets accepted to colleges, graduate programs, post\_doctoral positions, or jobs. Maybe the combination of using prizes to make science and scientists more important in our society, along with the accurate recognition of what they truly represent, will restore some balance to the prize mentality of our academic establishment.

Corrections to November "Field" Behavior. Due to an editing error, the references cited by Ed Kravitz were unintentionally changed. The corrections are as follows:

On page 5 of November 2000 newsletter, last paragraph, column 2, reference should be J. Physiol. (Lond) 31:20, 1904; on page 6 of the newsletter, line 13,

column 1, leave out "in"; same paragraph, line 14 reference should be J. Physiol. (Lond) 32: 401-467, 1905.

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## MEETINGS AND COURSES

The 26th Annual **Larval Fish Conference** will be held in Bergen, Norway. Our goal is to attract the complete range of researchers working on the early life history of fishes: from embryologists through to fisheries ecologists. One of the major theme sessions will be "Developmental neurobiology of fishes", and Glenn Northcutt has agreed to be the Keynote speaker. Details about the meeting \_ including the venue (the beautiful Solstrand Fjord Hotel), planned theme sessions, and tourist information \_\_ are already available on the LFC 2002 internet site: [www.fishlarvae.com/lfc](http://www.fishlarvae.com/lfc) You may express your interest in the Conference by adding your name to our mailing list (online), or by contacting the organizer at: Howard I. Browman, Ph.D., Senior Research Scientist, Institute of Marine Research, Austevoll Aquaculture Research Station, N\_5392 Storeb, Norway, E-mail: [Howard.browman@imr.no](mailto:Howard.browman@imr.no)

Coming in Summer 2002: We are pleased to announce the formation of a new biannual Gordon Research Conference, "Sensory coding and the natural environment: Probabilistic models of perception" The first meeting will be held June 30 \_ July 5, 2002 at Mount Holyoke College, MA. Information: [http://www.klab.caltech.edu/~pam/GRC\\_announce.html](http://www.klab.caltech.edu/~pam/GRC_announce.html), contact: [pam\\_reinagel@hms.harvard.edu](mailto:pam_reinagel@hms.harvard.edu)

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## FUNDING OPPORTUNITIES

**Funding opportunities** from the National Institute on Drug Abuse (NIDA), National Institutes of Health. NIDA is interested in supporting neuroscience and behavioral research that may shed light on the problem of drug abuse. Studies of the neurobiology of motivated behaviors, neuromodulation, behavioral choice, and synaptic plasticity, among other topics, could be of considerable interest to NIDA. To quote NIDA's Director, "You may be a drug abuse researcher and not even know it." See the NIDA web site <http://www.nida.nih.gov/NIDAHome.html>, or contact Susan Volman (Ph. 301 435-1315; [svolman@nida.nih.gov](mailto:svolman@nida.nih.gov)) for further information.

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## MATERIAL FOR FUTURE NEWSLETTERS

We welcome material for future newsletters for a variety of different sections each issue. Advertisements for positions (faculty or student) are limited to 150 words. Announcements of new books (copyright 2001) *written or edited by ISN members* should include the full citation information (including ISBN) *plus* a 40-50 word description of the book. (Note, if an ISN member only contributed a chapter this is not appropriate for inclusion). These should be submitted no earlier than one month before the next issue (July, 2001)

We also welcome announcements of future meetings, discussion material about research areas or topics of interest to neuroethologists, and similar types of material. Please contact Arthur Popper before submission to determine length.

All material must be submitted electronically, and preferably as an attached file to an e-mail. Send all material to Art Popper.

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### NEW BOOKS BY ISN MEMBERS

*Sinne Und Verhalten: Aus Dem Leben Einer Spinne.* By Friedrich G. Barth (2001), 424 pp, 16 color plates; Springer (ISBN 3\_540\_67716\_X); hardcover, ca. 67.\_ US \$ (DM 129.\_). This book is about the neurobiology of spiders, taking a Central American wandering spider as a model species. It introduces the spider's sophisticated sensory systems and examines their role in the larger biological context, where the sensors are matched to the habitat and form the link between environment and behavior.

*Hearing by Whales and Dolphins*, edited by W. W. L. Au, A. N. Popper, and R. R. Fay, 2000, Springer-Verlag, \$89. [www.springer\\_ny.com/](http://www.springer_ny.com/). This volume provides a comprehensive overview of the hearing and sound communication systems of whales and dolphins including material on hearing, ear, CNS, echolocation, acoustic behavior and communication. The eight chapters are comprehensive reviews that emphasize major concepts. The volume is part of the Springer Handbook of Auditory Research series.

*Comparative Hearing: Birds and Reptiles*, edited by R. J. Dooling, R. R. Fay, A. N. Popper, 2000, Springer-Verlag, \$89. [www.springer\\_ny.com/](http://www.springer_ny.com/). This volume, part of the Springer Handbook of Auditory Research series, includes seven chapters on all aspects of the auditory and hearing of both birds and reptiles. Each chapter is a comprehensive and conceptually-oriented review that enables the reader to get a broad understanding of hearing in these two vertebrate groups.

### GRADUATE AND POSTGRADUATE POSITIONS

#### Two Postdoctoral Positions in Systems and

**Developmental Neurobiology** are available. One is for intracellular studies of microcircuits underlying form vision in insects. Experience in using dye-filled recording electrodes would be useful, as would some experience in neurohistology and confocal microscopy. The second position is for studying the function and/or development of a learning and memory neuropil in the cockroach. Experience in electrophysiology, and/or cell labeling and tissue culture methods is of an advantage. The successful applicants will enjoy a multidisciplinary research environment in a Division of Neurobiology whose members study various aspects of insect nervous system function and development. The host laboratory is funded by grants from the National Institutes of Health, The Human Frontiers Science Program, The National Science Foundation, and The Office of Naval Research. Contact, with statement of interest: Dr. Nicholas J. Strausfeld, ARL Division of Neurobiology, 611 Gould-Simpson Building, Univ. of Arizona, Tucson AZ 85721. E-mail: [flybrain@neurobio.arizona.edu](mailto:flybrain@neurobio.arizona.edu)

**Two Postdoctoral positions open to study the comparative and evolutionary biology of hearing in insects.** Possible projects include the systems neurobiology of ultrasound-triggered evasive behavior, the hormonal control of auditory system development, and the ultrastructure and biomechanics of the mantis ear. Send CV and selected reprints by mail to Dr. David Yager, Department of Psychology, University of Maryland, College Park, MD 20742 or via e-mail to [dy5@umail.umd.edu](mailto:dy5@umail.umd.edu)

**Postdoctoral Position:** A position is available immediately to participate in our research program, which investigates the functional organization of olfactory systems using crustacean models. A number of potential projects are available using numerous techniques: cellular and molecular control of development (neuronal proliferation and turnover); modulation of development using tissue culture; functional neuroanatomical connections, using tract-tracing techniques; electrophysiological analysis of developing receptor neurons; behavioral role of peripheral-central pathways, using large naturalistic flumes. GSU is part of a well-equipped, well-funded, and highly interactive Atlanta Neuroscience community that provides opportunities for collaborative investigations, including the NSF-funded Atlanta-wide Center for Behavioral Neuroscience. Visit <http://www.gsu.edu/~biocdd> for more information about

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our work. Send your C.V. (including educational background, research experience, and publication list) and the names, addresses, phone numbers and e-mail addresses of three references to: Charles Derby, Dept. Biology, Georgia State University P.O. Box 4010, Atlanta, GA 30302-4010; cderby@gsu.edu, phone 404-651-3058, fax 404-651-2509.

**Postdoctoral research:** Central Auditory Processing of Biosonar/communication Signals in Bats. In brain stem and midbrain auditory regions, we examine physiological responses, connectional and chemical anatomy, and neuropharmacology of neurons responding to biosonar and communication sounds in the mustached bat. Experience in neurophysiological, neuroanatomical (tract-tracing, immunocytochemistry, *in situ* hybridization), or neuropharmacological (micro-iontophoresis) techniques are helpful. To apply, send a *curriculum vitae* with names of three references to: Human Resources c/o Dr. Jeff. Wenstrup, Department of Neurobiology and Pharmacology, Northeastern Ohio Universities College of Medicine, 4209 State Route 44, Rootstown, OH 44272-0095 USA. For information, contact Jeff Wenstrup by phone: (330) 325-6630, e-mail: (jjw@neoucom.edu), or (<http://web.neoucom.edu/DEPTS/NEUR/Faculty/WenstrupJ.html>). NEOUCOM is an EEO/AA Educator and Employer.

# BALLOT FOR BY-LAWS CHANGES

Ballot must be received by May 15, 2001

Please send ballot to:  
International Society for Neuroethology  
c/o Panacea Associates  
744 Duparc Circle  
Tallahassee FL 32312 USA

Item 6: *Executive Committee and Officers of the Society*

FOR CHANGE

OPPOSED TO CHANGE

Item 8: *Congress Committees*

FOR CHANGE

OPPOSED TO CHANGE

Item 11: *Amendments to By-Laws*

FOR CHANGE

OPPOSED TO CHANGE

International Society for Neuroethology  
c/o Panacea Associates  
744 Duparc Circle  
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TO: