

Buzz Words



The Newsletter of the Florida Mosquito Control Association Apr/May 2000

Arbovirus Update and West Nile Virus Response Conference

The Florida Dept. of Agriculture and Consumer Services and the Florida Dept. of Health are co-sponsoring an informational meeting on April 18, 2000 (1:00 p.m. – 5:30 p.m.) at the Holiday Inn West (352) 332-7500, 7417 NW 8th Avenue, Gainesville, FL, 32605, in the ballroom. The objectives of this meeting are to provide an update on arbovirus surveillance in Florida, discuss West Nile virus response strategies and promote interagency networking within the state.

FMCA Spring Meeting

May 3-4, 2000. The 2000 Spring Conference of the Florida Mosquito Control Association. Safety Harbor Resort & Spa. On Tampa Bay, Safety Harbor, FL. See registration form and call for papers inside this issue of Buzz Words.

Subcommittee on Managed Marshes Quarterly Meeting



The Spring SOMM meeting will be held in Lee County, May 10- 11, 2000. Anyone interested in obtaining information about this meeting can contact Doug Carlson, Indian River Mosquito Control District at: (561)562-2393 or dcarlson1@hotmail.com.

4th Workshop on Salt Marsh Management & Research

The Subcommittee on Managed Marshes' 4th Workshop on Salt Marsh Management & Research will be held in the Vero Beach area the week of October 23, 2000. Anyone interested in obtaining information about this meeting can contact Doug Carlson, Indian River Mosquito Control District at: (561)562-2393 or dcarlson1@hotmail.com

Inside this issue: FMCA Web Page News• FMCA Activities• News from PHEREC• Editor's Note• Spring Meeting Announcement/Call for Papers•Identifying Research Needs for FL Mosquito Control• Heartwater in FL• Announcements• Job Announcements•Equine Cases of EEE•Sentinel Chickens•

FMCA Web Page News

This column will be a regular feature of Buzz Words, bringing you news from your Webmaster about the FMCA Web Page and new URLs that might be of interest. By the time the next Buzz Words is published, the *Winter 1999 Wing Beats* will be available online in both the full PDF version and a text only HTML version on the web page. The rest of the 1999 issues will also be made available as HTML text versions shortly. Have you checked the *Classifieds* recently? We are adding information in that section regularly.

Notice that we also have a *Current Events Section* now and Dr. Jim Cilek has a note there on upcoming FMCA publications. Several new entries have been made to the *Links Section*: [Broward County Mosquito Control](#), an updated link [Leon County Mosquito Control](#), [Hillsborough County Mosquito Control](#), an updated link for [Pasco County Mosquito Control](#), [North Carolina Mosquito and Vector Control Association](#) [London Fog](#).

If you have a web site and it is not listed, let me know. Coming improvements include an updated and complete listing including pictures of FMCA/Dodd items one can purchase through the association.

If anyone is interested in establishing a **FMCA Discussion Group** through the FMCA web site, let me know by email or a phone call. Here we could develop a "real time" information resource that would benefit everyone that subscribes. I have a couple of sites willing to host it, but don't want to get too involved if there is no interest. Four other interesting web sites I've found recently are Groups [Entomology Discussion](#) and [Advanced Computer Resources Corporation](#) possible sites where we might place a discussion group, 2000 [Entomology Events Calendar](#) which lists all of the entomological meetings and conferences they know about (I try to keep them updated with our groups) and Global Change electronic edition's feature on West Nile includes several additional reference links [Global Change](#)

---- Tom Floore
Tomfloo@knology.net
FMCA Webmaster

FMCA Activities

2000 Dodd Short Courses

There were 350 registrants for the Dodd Short Courses this year. The highest course attendance was in Workplace Safety and the two "fastest sell out" courses were both Introduction to Mosquito Control courses and the Inspector/Sprayer Refresher course.

Suggestions for next year's courses (from the evaluations) included Communication in the Workplace, Improving Communication Skills (especially with coworkers), Talking with the Press, Customer Service, Aerial Coursework (similar to flyin material), Resistance II, Dealing with the Public and Chronic Complainers, How to Formulate and Complete

All Written and Required Safety Plans and the ubiquitous Mushroom Farming! The Short Course Committee continues to strive to provide educational opportunities for all Mosquito Control programs please help us help you by forwarding any of your ideas to a Short Course member. For next year (Jan. 22-26, 2001), we are looking for slide projectors. If your district has one to loan out during the week of the Short Courses, please contact **Kim Feagley (727) 376-4568**.

--Kellie Etherson, Co-chair
Dodd Short Course

Subcommittee

Identifying Research Needs for Florida Mosquito Control

The primary mission of the Florida Medical Entomology Laboratory is to conduct basic and applied research on biting arthropods with special attention to the needs of Florida organizations involved in mosquito control. Accordingly, the FMEL must assess the needs of mosquito control organizations in the state of Florida. This is not an easy task. I suspect it added more than a few gray hairs to the previous FMEL Directors (the question was addressed by Dr. Provost nearly 30 years ago). How can we improve our efforts at the FMEL so that appropriate and needed information is provided to the mosquito control community?

In the past, the FMEL has conducted surveys and used responses to formal written questions, direct contacts and meetings with stakeholders to direct research efforts. Other venues to solicit input from stakeholders included The Florida Coordinating Council on Mosquito Control, the FMEL Advisory Committee, the Department of Agriculture and Consumer Services, and the FMCA. Since joining the FMEL nearly a year ago, I have been impressed by the breadth and diversity of issues facing Florida Mosquito Control. The challenges include many different circumstances that hinge on local and regional environments. There is a never-ending demand for new information to help protect Florida against arthropod pests and arthropod-borne diseases. This requires ever more research. There is a lot to do.

For this discussion I have categorized the information needs into several broadly defined areas. We have issues concerning floodwater mosquitoes, tideland mosquitoes, woodland mosquitoes, container breeding mosquitoes, and other bloodsucking arthropods. Then there are needs concerning current control strategies, novel control strategies, larvicides, adulticides, environmental impacts, water quality, impacts on wetland ecosystems, mosquito migrations, host preferences, mosquito disease vectors, SLE, EEE, conflicting public demands and media pressures, and emerging issues like West Nile virus in Florida, and the danger of invasive pests. And this is just a sample. This modern-day information demand is testimony to the collective wisdom of Dr. Mulrennan, Sr., Mr. Becton and Dr. Provost in creating the FMEL as a Florida research center nearly 50 years ago. However, with all these demands we find ourselves in an era of shrinking research funds. For example, the FMEL has seen a decrease in its state-operating budget of nearly 30% since 1990 (before inflation adjustments). Nearly 50% of the current research support at the FMEL is through nationally funded competitive external grants. A discussion of the effects of national funding on Florida research needs can be saved for another column.

So, how will the FMEL address Florida research needs? Certainly we will have to focus on selected research issues, those with highest priority, those for which we can accrue the needed resources, and those for which we have the greatest chance of providing meaningful, important and useful data. We must facilitate research collaborations between the Florida mosquito research laboratories and the research capabilities of the Mosquito Control Districts. The FMEL researchers will continue to make hard choices on the projects, generate the research funds and ensure completion of the projects, making sure our stakeholders, partners and collaborators are aware of and benefit from the research. Our challenge at the FMEL is to communicate with our partners, collaborators and stakeholders throughout Florida. We need to work together to ensure that research is supported through IFAS, and the University of Florida under the IFAS Florida FIRST initiatives. Florida FIRST is the plan for IFAS in the 21st century. It can be viewed at [IFAS Florida FIRST](#)

It is our collective duty and challenge to engage one another directly in the planning and conduct of research, as partners, wherever and whenever we can. We need your input, your help and your support. The FMEL Home Page at [FMEL Home Page](#) lists e-mail addresses of faculty and contains brief descriptions of FMEL research. We welcome your questions, suggestions and comments through this medium. So to all our partners, keep calling, writing and speaking up at meetings. Stay tuned, the

“Certainly we will have to focus on selected research issues, those with highest priority, those for which we can accrue the needed resources, and those for which we have the greatest chance of providing meaningful, important and useful data.”

FMEL will be in touch.

**Walter J. Tabachnick, Director
Florida Medical Entomology Laboratory**

News from PHEREC

UpDate on Resistance Project



The project "Standardized Methods for Efficacy Testing of Mosquito Insecticides" has been initiated. Several mosquito control programs in the Florida Panhandle are currently involved. If you are interested in participating, please contact **Dr. Jack Petersen** at the John A. Mulrennan, Sr. Public Health Entomology Research and Education Center [PHEREC] [Dr. Jack Petersen](mailto:Dr.Jack.Petersen@pherec.org) (850) 872.4184 ext. 36. Current information will be posted at <http://pherec.org>

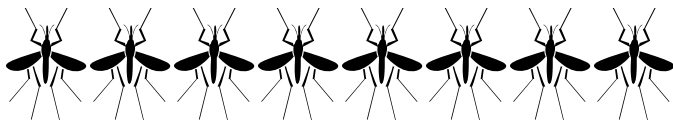
Record Attendance at the Southeast Regional Conference

A record 91 people attended the Southeast Regional Public Health Pest and Vector Management Conference hosted by the John A. Mulrennan, Sr. Public Health Entomology Research and Education Center. New Zealand, Mexico and Tennessee were some of the most distant geographic points represented. The risk of introductions of exotic arthropod borne pathogens from distant points of the globe was highlighted in both plenary lectures and "hands on" workshops.

The conference offered a wide variety of continuing education topics tailored for environmental, public health, pest and mosquito control professionals. Pesticide application equipment calibration, mosquito, tick, biting gnat ID, mosquito trapping and respirator training were topics offered in hands on workshops.

Training and recertification were important objectives of the conference. Sixtythree of the 91 registrants signed attendance sheets for continuing education units. Next year's conference will continue the tradition of providing high quality training that enables insect control operators to keep current in their chosen professional field. Panama City Beach will be the venue for next year's conference scheduled for February 1315, 2001.

---Dr. Jack Petersen
Extension Medical Entomologist, PHEREC



EDITOR'S NOTE

Some of you may have missed the Feb/Mar issue of Buzz Words because of a problem with the mailing list. The list has been updated now and everyone who has been receiving the newsletter on a regular basis should be on the list.

Please send any address changes, requests to be added to the mailing list, and submissions for the Buzz Words newsletter to:

Dr. Roxanne Rutledge, Editor
FMEL
200 9th Street S.E.
Vero Beach, FL 32962
crr@gnv.ifas.ufl.edu

Deadline for contributions to the June/July issue of Buzz Words is May 22, 2000.



Announcements

AMCA LEGISLATIVE VISITS

The AMCA Legislative Visits in Washington are scheduled for May 23-25, 2000. Members are encouraged to go to Washington at that time and join in the effort to enlighten our legislators about the strengths and needs of the mosquito and vector control industry. A formal plan has been prepared for this event. Check the AMCA website at www.mosquito.org for details.

ACCEPTING APPLICATIONS FOR INTERNATIONAL TRAVEL



The FMCA Personnel Exchange Committee is accepting applications from individuals interested in traveling internationally to increase their skills and expertise in mosquito control operations. \$3000 is available to cover travel costs and lodging for the recipient of the travel grant. Funds are also available for domestic travel grants. For additional

information, please contact **Peter O'Bryan**, Chair, Personnel Exchange Committee, at 800-443-2034, or pob1234@hotmail.com

CALL FOR SUBMISSIONS

The Technical Bulletin of the Florida Mosquito Control Association is soliciting submissions for future publication consideration. Submissions should be more than 40 printable pages in length (equal to a manuscript of about 40 double spaced pages). The subject should be applicable to public health arthropod concerns of Florida or the southeastern US. Submissions may focus on a single subject or be composed of an edited series of chapters around a central theme. There are no page charges for publishing in the Technical Bulletin. Contact **Dr. Jim Cilek**, Editor, John A. Mulrennan, Sr. Public Health Entomology for Research and Education Center, Florida A & M University, 4000 Frankford Avenue, Panama City, FL 32405, 850-8724184 or cilek_j@popmail.firn.edu.

THEY'RE BACK!!



Paul Mason, of Gold Coast City Council, Queensland, Australia, appears to be the next Australian to visit Florida as part of the Florida-Australia Personnel Exchange Program. We are seeking Districts that are interested in being a Host District during Paul's visit. Host Districts generally provide lodging for the guest with one of the District's staff and integrate the guest into the daily activities of the host, both work and pleasure related. This allows for both professional and cultural exchanges, as well as the forging of life-long friendships. Those persons and/or districts interested in being an International host, are encouraged to contact **Peter O'Bryan**, Chair, Personnel Exchange Committee, at 800-443-2034, or pob1234@hotmail.com

Job Announcements

Broward County Civil Service Opportunity

Mosquito Control Inspector I, Salary \$8.27 per hour. Requires high school graduation or an equivalent recognized certification and six (6) months experience in mosquito control work; or any equivalent combination of training and experience. SPECIAL REQUIREMENT: A valid Florida Driver's License is required. Must obtain Florida Department of Agriculture Public Health Applicator's License within six (6) months probationary period. Official application must be received by May 12, 2000. Official application and job announcement may be downloaded from www.co.broward.fl.us/careers.htm and mailed in or obtained from the Broward County Division of Human Resources Staffing Center, 115 S. Andrews Ave., Annex B, Ft. Lauderdale, FL 33301. (954) 357-6444. Broward County is an equal opportunity employer and provider of services.

Sarasota County Mosquito Management Services

"Breaking new ground on our way to the top."

Mosquito Management Scientist, anticipated salary range: \$35-55K; anticipated date of availability: July 1, 2000. This individual will develop and maintain an operational mosquito management research and development program aimed at reducing pesticide usage. The successful applicant will be expected to seek outside funding for innovative research, cooperate with mosquito scientists at Florida universities and other Florida mosquito control programs, and cooperate with other Sarasota County departments, the Southwest Florida Water Management District, Mote Marine Laboratory and others. Minimum qualifications will include a Bachelor's Degree in an appropriate biological or physical science and 4 years of experience in field ecology with demonstrated abilities to obtain grant funds and publish results of scientific investigations in credible scientific journals. A Master's Degree can substitute for one year and a Ph.D. Degree can substitute for two years of professional experience. Applicants may submit a letter of interest and a resume directly to Dr. Charles Morris, Manager, Mosquito Management Services, 5531 Pinkney Avenue, Sarasota, Florida 34233. For additional information, please contact Morris at (941)316-1247 or cmorris@co.sarasota.fl.us.

Mosquito Management Biologist; anticipated salary range: \$28-42K; anticipated date of availability: July 1, 2000. This individual will manage the mosquito, arbovirus, and environmental surveillance programs; establish and maintain mosquito colonies, monitor wild mosquito populations for pesticide sensitivity, conduct efficacy evaluations of pesticides, and other sophisticated field and laboratory duties. Specific duties will include mosquito identification, mosquito dissections, data compilation and analysis. Minimum qualifications will include a Bachelor's Degree in an appropriate biological or physical science and two years of professional experience related to the position. A Master's Degree can substitute for one year of professional experience. Applicants may submit a letter of interest and a resume directly to Dr. Charles Morris, Manager, Mosquito Management Services, 5531 Pinkney Avenue, Sarasota, Florida 34233. For additional information, please contact Morris at (941)316-1247 or

South Walton County Mosquito Control District

Biologist/Entomologist - full time. A four year BS degree is required. Good benefits and pay. SWCMCD is an equal opportunity employer and a drug-free workplace. Applications may be picked up at SWCMCD Office on County Road 393 North in Santa Rosa Beach, Florida, 32459, Mon-Fri., 7:30 a.m. - 3:30 p.m. or Contact Gary D'Andrea, Director, South Walton County Mosquito Control District, P. O. Box 1130, Santa Rosa Beach, FL, 32459. Phone (850) 267-2112. Fax (850) 267-2712.

**Florida Mosquito Control Association
CALL FOR PAPERS FOR 2000 SPRING CONFERENCE
Safety Harbor Resort & Spa on Tampa Bay
Safety Harbor, FL
May 3 - 4, 2000**

You are invited to submit a title for a paper to be presented at the 2000 Spring Conference of the Florida Mosquito Control Association, Inc. to be held at the Safety Harbor Resort & Spa, May 3 - 4, 2000. Type the title, author(s), organization(s), and address(es) exactly the way they are to appear on the program. If more than one author is listed, place an asterisk after the name of the author who is to present the paper. Send this form to Mark Latham, Manatee County Mosquito Control District, 2317 2nd Avenue West, Palmetto, FL 34221. Telephone: 941.722.3720; FAX: 941.721.0452; or manateemcd@aol.com

Please submit as soon as possible so there is time to plan and organize the program.

TITLE:

AUTHOR: (Include telephone, fax numbers, and email address of senior author)

1.

2.

3.

ORGANIZATION:

1.

2.

3.

MAIL ADDRESS:

1.

2.

3.

REQUESTED DURATION OF PRESENTATION: _____

AUDIOVISUAL EQUIPMENT REQUIRED: Slide ____; Overhead ____; LCD ____; other _____

PAPER CATEGORY:

Research: ____ Operations: ____ Regulatory: ____ Other (please specify): _____

PLEASE SUBMIT ASAP!

FMCA 2000 Spring Conference May 3 – 4, 2000 Safety Harbor Resort and Spa on Tampa Bay

The meeting will begin at 1:30 on May 3. General presentations will continue until 12:30 on May 4. Following the general conference, there will be an Advanced Inspector/Sprayer Refresher Class offered. For more details on the Inspector/Sprayer class, call Shelly or Sandy at (941)6942174 after February 14, 2000. For room reservations call: (727)7261161 at the Safety Harbor Resort and Spa, located at 105 North Bayshore Drive, Safety Harbor, FL 34695. Room rate is \$100 per night, single or double. These rates are subject to 6% state tax and 5% county resort tax. You will not be considered tax exempt unless you pay using a tax exempt agency check or credit card with the agency name on it and you must have a copy of your tax exemption certificate. Please be sure to ask about tax exemption when making your reservation. If you have any questions, please call Sandy or Shelly at (941) 6942174. There will be no refunds given after April 25.

Florida Mosquito Control Association, Inc.
Post Office Box 60837
Ft. Myers, Florida 33906-0837

Federal ID # 591819301
Phone: (941)694.2174; (941)433-5684
Fax: (941)433-5683; (941)694-6959

Name: _____

Agency: _____

Address: _____

Email: _____

Phone: _____ Fax: _____

Check or P O Number: _____

Please check:

Advanced Registration : Must be faxed or mailed by April 17, 2000

Director \$65.00 ____

Commissioner \$65.00 ____

Member \$45.00 ____

Companion \$30.00 ____

Nonmember \$55.00 ____

Please indicate name for badge: _____

On site registration

Director \$70.00 _____
 Commissioner \$70.00 _____
 Companion \$35.00 _____ Please indicate name for badge: _____
 Member \$50.00 _____
 Nonmember \$60.00 _____

Heartwater in Florida

Last November, the causative agent of heartwater was found in ticks collected in Hillsborough County. This disease poses a serious threat to the livestock industry in Florida. An emergency order was issued effective December 9, 1999, requiring entry permits, inspection and quarantine for the importation of animals from countries with endemic heartwater into Florida. Reptiles, amphibians, llamas, antelopes, and captive wild species from all areas must be certified free of ticks prior to entry. The importation of African spurred tortoises and leopard tortoises was prohibited. Effective March 22, 2000, USDA/APHIS banned importation of the two tortoises and the Bell's hingeback tortoise into any part of the United States. Additionally, there is a ban on interstate movement of these land tortoises.

The ticks were collected at a reptile breeding facility from tortoises imported from Africa. They were identified as *Amblyomma sparsum*, an African species which predominantly feeds on reptiles. This tick has not been previously found established in Florida. Control efforts were immediately initiated to eliminate the tick population and to determine if either ticks or heartwater could be found outside the facility. Results of these activities have not been published to date.

Heartwater is a tick-borne disease, caused by *Cowdria ruminantium*. *Cowdria* are closely related to *Ehrlichia*, which includes other tick-borne diseases. Heartwater affects ruminants, including cattle, sheep, goats and deer, and is often fatal. Native to Africa, it is found in 38 sub-Saharan countries. Several species of *Amblyomma* transmit *C. ruminantium*, depending upon geography, climate and wild hosts present. *Amblyomma variegatum* (the tropical bont tick) and *C. ruminantium* are also present on at least three islands in the Caribbean. Many species of vertebrates are considered potential reservoirs. Several species of reptiles, mammals and birds can be infected, and some can enter persistent carrier states. In particular, some species of tortoises appear to remain infected for prolonged periods, with no obvious signs of disease. Humans are not affected.

Symptoms in ruminants characteristically include a rapid rise in body temperature, loss of appetite and respiratory distress, followed by nervous system involvement. Mortality rates in susceptible animals range from 20-100%; high mortality rates would be expected in the completely naive US populations (40-100%). With an estimated 1999 cattle inventory value of just under \$1 billion, this disease could devastate the Florida livestock industry. There currently is no vaccine or effective treatment. Wild ruminants such as white-tailed and key deer are also at risk. Should heartwater become established in Florida, the threat to the cattle industry in other parts of the US would very likely result in restrictions on the movement of animals. The costs of such restrictions and control efforts would also seriously impact Florida.

Previous introductions of exotic ticks have alerted us to the dangers, but the introduction of heartwater itself is particularly concerning. A native *Amblyomma* species, *A. maculatum* (the gulf coast tick) will transmit *C. ruminantium* in the laboratory. However, attempts to transmit heartwater by another native *Amblyomma*, *A. americanum* (the lone star tick), have failed. The 1997 discovery of a breeding population of *A. marmoratum* demonstrated that exotic ticks can establish in Florida. Although this population was eradicated shortly after discovery and was confined to a reptile facility, our native wildlife could support exotic ticks. The mild climate allows survival of both exotic ticks and exotic reptiles, increasing the potential for interactions with our native ticks and wildlife. Should *Cowdria* become established in native tick and ruminant species, it would be extremely difficult to control or eradicate.

The trade in exotic reptiles is increasing, and much of this trade comes through Florida. These animals are difficult to inspect and quarantine, and there are no acaricides registered for use on some reptiles. Although many of the exotic *Amblyomma* are very large as adults (2-3 times larger than our native species), reptiles are often infested with immature ticks which can be very small and difficult to see. There have been numerous reports of ticks on reptiles being imported into Florida. Thus, it is difficult to prevent the accidental introduction of exotic ticks. Better methods for treatment and quarantine will be required if the trade in exotic reptiles is to coexist with the livestock industry.

An additional concern is the potential introduction of ticks or heartwater from the Caribbean. The tropical bont tick also feeds on birds, particularly in the larval stage. It has been suggested that cattle egrets were involved in the spread of the tick between Caribbean islands. Migrating birds could potentially transport the tick to Florida, although the potential for

population establishment is low.

The introduction of heartwater and exotic ticks into Florida is of great concern. We need to be alert to infestations of exotic ticks, not only at exotic reptile facilities, but on domestic animals and native wildlife as well. Suspected exotic ticks should be collected and sent for identification (National Veterinary Services Lab., P.O. Box 844, Ames, Iowa, 50010). Better methods to prevent the importation of infested animals, by the development of treatment, quarantine and inspection protocols, will be critical. In the absence of treatment or vaccines against heartwater, vigilance will be our primary line of defense.

Further information on the web:

Full text of the emergency order:

<http://doacs.state.fl.us/~ai/5cer991.htm>

APHIS fact sheet:

<http://www.aphis.usda.gov:80/vs/equine/heartwater.html>

Dr. Cynthia C. Lord, Assistant Professor

Florida Medical Entomology Laboratory

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Sentinel Chickens

The numbers of sera submitted and counties participating in surveillance activities during February were similar to that for January. In this table, seroconversions which are listed as unconfirmed have not yet had a second serum ("rebleed") submitted from that bird. There were no seroconversions to Eastern Equine Encephalitis virus (EEE) or to St Louis Encephalitis virus (SLE) during February. This is similar to the historical average seroconversions. A seroconversion to EEE that had occurred in late January in Orange County was confirmed in February. The 1999 annual report totals (Excel file) and graphs (PowerPoint presentation) are available on the web, at www.doh.state.fl.us - click on Epidemiology, then Veterinary Public Health and Vector-borne Diseases.

Year	# of counties	# of birds	# of sera	# EEE	# SLE+		
1988	10	192	258	5	0		
1989	4		0	132		0	1
1990	6	83	119	1	1		
1991	10	331	685	3	6		
1992	6	252	372	1	0		
1993	5	224	367	1	0		
1994	7	193	439	1	0		
1995	6	214	262	0	0		
1996	14	402	744	1	1		
1997	6	236	565	1	0		
1998	6	191	531	0	2		
1999	7	235	417	12	2		
2000	7	197	409	0	0		
Average (1988-2000)					2.0	1.0	
Median (1988-2000)					1.0	0.0	
