



I.A.A.
CENTER FOR SMALL FARM RESEARCH
COLLEGE OF AGRICULTURE & HOME ECONOMICS
SOUTHERN UNIVERSITY
BATON ROUGE, LOUISIANA 70813 USA

International Association of
Astacology

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SEVENTH CONGRESS OF ASTACOLOGY -- The congress was a great success. A summary of the business meeting held on 5 August 1987 follows: (1) Financial Statement - This was presented, as received by telex from James F. Payne, showing a positive balance of approximately \$2600 US with expenditures since 1984 of about \$3000. (2) Election - A total of 53 ballots were received: President, James F. Payne, 53, President-Elect, David Holdich, 49, and Secretary-Treasurer, 53. (3) Membership Fees, 1987-1990: Regular, \$25 US, Student, \$12.50 US, and Business, \$50 US. (4) Permanent Secretariat - A permanent secretariat is to be established under Professor Per Brinck at the University of Lund in Lund, Sweden. This is being done to provide a permanent home for the IAA. More details will be provided in the December 1987 newsletter. (5) The Eighth Symposium of Astacology will be held in Baton Rouge, Louisiana USA in April 1990. Further details will be forthcoming. (6) The periodic publication of proceedings from IAA symposia will be called, henceforth, "Freshwater Crayfish, A Journal of Astacology". (7) A resolution on the international transportation of live crayfish was introduced and adopted unanimously. The text is published below.

OTHER INFORMATION -- Honorary Life Members - Professor Per Brinck and Professor James W. Avault, Jr. were both elected to be honorary life members of IAA for services rendered to the association. Both are "founding fathers" of IAA and have served the association in many capacities. By-Laws - The Board made a temporary exception to the stipulation that no two officers could come from the same country. Unusual circumstances led to the nomination of Jay Muner (USA) as secretary-treasurer and James Payne (USA) as president. IAA Directory - A list of IAA members will be distributed to all members in the next several months. This will be accompanied with a questionnaire so that a Directory of Astacologists can be compiled and distributed to members. Abstracts from Seventh Congress of Astacology - These will be distributed in the newsletter over the next several issues.

CALL FOR MANUSCRIPTS -- Professor Pierre Goeldlin is editing

the proceedings of the Seventh Congress of Astacology - Freshwater Crayfish VII, A Journal of Astacology. He requests that authors forward their manuscripts as soon as possible as very few manuscripts have been received despite a September 1987 deadline.

RESOLUTION ON THE INTERNATIONAL TRANSPORTATION OF LIVE CRAYFISH -- 7th International Symposium of Astacology - Lausanne, August 5th, 1987. The Astacologists of the International Association of Astacology meeting in its seventh International Symposium in Lausanne, Switzerland, 3-5 August 1987, have noted:

- the damaging effects to live crayfish markets following the drastic decline in Turkish crayfish production,
- the marketing of new living crayfish species from many different places,
- the total absence of guarantees that such crayfish do not carry communicable parasites and diseases,
- the appearance of epidemics in European crayfish of aphanomycosis (the crayfish plague parasite), especially where it has not previously existed,
- the accrued risks of transmission of parasites and diseases, especially aphanomycosis, from other crayfish populations to native crayfish,
- the grave menace to native crayfish populations from introduction of undesirable exotic crayfish, and
- the potential for exposing fish to diseases and parasites born by crayfish.

Therefore, in view of the need for conservation of indigenous species and populations, we recommend that Governments find the means to stop the importation and transportation of living crayfish into their countries for any purpose (food, fish bait, pets, etc.), except for governmentally approved scientific purposes, restocking purposes or introductions. Further, those Governments should be responsible for assuring that such living crayfish are parasite and disease free. Finally, Governments should encourage the restoration of native crayfish stocks wherever possible.

We encourage the immediate international adoption of this resolution.

INFORMATION ABOUT CRAYFISH IN VARIOUS COUNTRIES -- (1) Belgium -P. Gerard, Station de Recherches Forestieres et Hydrobiologiques, A. Duboislaan 14, Groenendaal, B-1990 Hoeilaart, Belgium. Belgium imports about 200 T of crayfish per year. More than 95 % is imported live from Turkey (Astacus leptodactylus). There is apparently no limitation on importation of live crayfish into Belgium. Procambarus clarkii is very rare in Belgium. With the decline in Turkish crayfish supplies, imports of American crayfish can be expected to increase. (2) France -P. Laurent, I.N.R.A., 75, Av. de Corzent, F-74203 Thonon les Bains Cedex, France. Procambarus clarkii has become established in waterways in northern areas of Paris and in a coastal river entering the Atlantic. (3) Italy -A.

Mancini, Via Flaminia 12, 00068 Rignano Flaminio, Italy. Procambarus clarkii is imported from Thailand and Singapore for the aquarium trade. Crayfish culture is attracting much attention. Several farmers wish to breed P. clarkii and the species is imported from Kenya and Spain by fish traders. The species is being bred experimentally at government facilities but is probably not yet being bred by private interests. It is not thought to have been introduced successfully into natural waters as has Astacus leptodactylus from Turkey.

(4) USA -B. Paqel, 217 W. Liberty, Deerfield, Wisconsin 53531 USA. An effort to develop a commercial fishery for Orconectes rusticus resulted in the harvest of 4.5 T of crayfish in August 1985. Potential for development appears excellent if fishermen can be organized. (5) USA -J. Pollard, Lockhead-EMSCO, 1050 E. Flamingo Rd. Suite 301, Las Vegas, Nevada 89119 USA.

Procambarus clarkii exists in isolated pockets throughout Lake Mead but at very low densities. The average trap returns were on the order of 0.05 animals per trap day after having expended over 1000 trap days effort. Best returns were on the order of 1 animal per trap day. That area (a small cove with rich vegetation beds for Lake Mead) was heavily predated by striped bass during the winter and the population in that cove appeared to be eliminated by spring. (6) England -D. Holdich, School of Biological Sciences, University of Nottingham, Nottingham, England. Procambarus clarkii has been found in natural English waters in summer 1987. It is not clear if it is reproducing there. (7) Sweden -M. Furst, Freshwater Research Institute, Drottningholm, Sweden. Procambarus clarkii continues to be found in southern Sweden. It is still not clear if it is reproducing there yet.

CRAYFISH IN MEXICO -- Alberto Huberman, Instituto Nacional de la Nutricion, Salvador Lubiran, Calle Vasco de Quiroga 15, Delegacion Tlalpan, 14000 - Mexico, D. F., sends the following information about crayfish exploitation. Procambarus bouvieri is found in the rivers and ponds surrounding the city of Uruapan, state of Michoacan, north-west of Mexico City. Traditionally, it has been caught by hand by farmers and sold to beer houses in the town to be used as tidbits to accompany beer and pulque (fermented juice of the century plant). As a recent development, they sell them to researchers in Mexico City. The season is August to October. There is no apparent serious exploitation of crawfish. In the northern states of Mexico, Procambarus clarkii proliferates in the irrigation canals, but is considered a pest by farmers who will not even think of eating them.

MEXICAN ASTACOLOGIST WOULD WELCOME CONTACTS WITH OTHER ASTACOLOGISTS -- Miguel A. Morales Mora, Escuela de Iniciacion Universitaria, Seccion Coatzacoalcos, Apartado 140, Antigua Carretera a Minatitlan Km. 5 y Medio, Coatzacoalcos, Veracruz, Mexico, has been studying Procambarus llamasii for some years now. Two of his recent papers are referenced under Recent Literature later in this newsletter. His interests include

phylogeny and ecology. Excerpts from a letter (in Spanish) follow: "...Le envio los trabajos que realizamos sobre la especie P. (A.) llamasii en la zona, el cual tienen como objetivo su incorporacion a la acuicultura integral para esta zona del tropico. Quiza le parezcan modestos, pero ese fue el fin de la produccion editorial, el cual espero recibir sus comentarios en su proxima carta. Espero sean de utilidad en la comunidad en la comunidad de Astacologos de Estados Unidos, y agradeceria su divulgacion. Actualmente estoy trabajando aspectos de la filogenia del subgenero -- Austrocambarus...."

CRAYFISH IN NEW ZEALAND -- S. G. Pullan, Ministry of Agriculture and Fisheries, P.O. Box 3437, Wrightson House, Auckland, New Zealand, sends comments about crayfish transplantations in New Zealand. "...The New Zealand Government has recently allowed 36,000 Marron (Cherax tenuimanus) to be imported from Australia for a farm in the northern part of the North Island. These are currently in strict quarantine until the concerns outlined below have been resolved and appropriate policy has been developed. The Ministry supports the development of aquaculture but in this case we have environmental concerns about this importation (along with various environmental groups). Our particular concerns are whether marron harbour any disease organisms that may be transferred to our native freshwater crayfish, the Koura (Paranephrops spp). Disease work we have done so far on the imported marron have not shown any disease or parasites to be present. I will shortly be undertaking experiments in aquaria to observe whether any disease organism the marron carry seriously affect koura. Another concern is interactions between the two species should marron escape - and also interactions with other aquatic life...."

CRAYFISH IN QUEENSLAND, AUSTRALIA -- Christopher Austin, Department of Biology, Queensland Institute of Technology, GPO Box 2434 Brisbane, Queensland 4001, Australia, writes about work with Cherax spp. Cherax tenuimanus - "Probably the most unfortunate consequence of the transplantation of the marron within Australia is the occurrence of introgressive hybridization between newly discovered subspecies of this species in Western Australia. My early electrophoretic studies on the marron indicated, unexpectedly, that one highly differentiated population exists isolated in a single river system. Taxonomically, the recognition of 2 subspecies is clearly justified. On a subsequent sampling trip, I found both subspecies in this river system together with hybrid individuals. The non-endemic subspecies apparently entered the river system through the establishment of a marron farm on a nearby tributary. The most unfortunate aspect of this business is that this new subspecies is essentially unknown scientifically and will be "lost" if complete genetic introgression between the 2 subspecies occurs...." Cherax quadricarinatus - "I have...contract to study commercial potential of a virtually unknown species of Cherax (C. quadricarinatus) that occurs in

remote parts of northern Australia. Unfortunately, like the marron, commercial interest in this species is running ahead of research. With the demise of the marron farming industry in south east Queensland farmers have rushed into stocking their ponds with wild caught G. quadricarinatus hoping that this species will tolerate the high summer water temperatures to which the marron apparently succumbed."

COMMERCIAL QUANTITIES OF PROCAMBARUS CLARKII AVAILABLE FROM PEOPLES' REPUBLIC OF CHINA?? -- Shu Xinya, Hubei Fisheries Science Research Institute, No. 18 Donghu Road Wuhan, Wuhan City, Peoples' Republic of China, advises IAA that 1000-2000 tons of Procamburus clarkii is produced annually from fish polyculture ponds near Shanghai. He is anxious to locate markets for these crayfish and is confident that production can be greatly increased if markets can be developed.

FRESHWATER CRAYFISH: BIOLOGY, EXPLOITATION AND MANAGEMENT -- This text is edited by David Holdich and Roger Lowery. The purpose of the book is to provide a comprehensive review of the biology, exploitation, and management of freshwater crayfish. It deals with species of economic importance from North America, Europe, and Australasia. Projected publication date is January 88 and price is anticipated to be 45 pounds. Contact: Croom Helm Ltd. Publishers, Provident House, Burrell Row, Beckenham, Kent BR3 1AT, UK.

DEVELOPMENT OF CRAYFISH CULTURE IN AUSTRALIA SLOW -- Ric Fallu, Fisheries and Wildlife Service, 240 Victoria Parade, East Melbourne, Victoria 3002 Australia, is working to develop advisory material for crayfish farmers. He writes that "Despite claims of a few individuals, crayfish farming is not on a good financial footing in this country, yet it appears that crayfish growth rates here are as good as are achieved in Louisiana and domestic prices seem to be a lot better. The problem may be a low skill level in our farmers, a lack of economies of scale or something else."

LOUISIANA SOFT-SHELL CRAYFISH PRODUCERS ASSOCIATION -- A soft-shell crayfish producers association has been organized. About 5 tons of soft-shell crayfish was produced during the 1986-87 crayfish season. Projections call for as much as 5 fold increase in the next season. Prices are around \$18/kg versus average prices of about \$1.25/kg for hard-shell crayfish. Soft-shell crayfish are sold as gourmet foods. Membership in the new association is \$20 per year. Information may be obtained from Mr. John Cooper Fore, President, Louisiana Soft-shell Crayfish Producers Association, 33203 Louisiana Highway 1019, Denham Springs, Louisiana 70726 USA.

NEW CRAYFISH PROCESSING SYSTEM AVAILABLE -- Trappey Foods, Inc., P.O. Box 2852, Lafayette, Louisiana 70502 USA, is selling a "Thermal Seafood Processor". The unit uses a combination of high temperature and high pressure to reduce the time needed to

prepare crayfish for hand peeling. The shells are said to be much easier to remove than with conventional cooking processes. Yield may be increased by as much as 33 %.

LOUISIANA CRAYFISH SEASON 1986-87 -- Officials report that Louisiana produced 50,000 T of crayfish during the Nov. 86-Jun. 87 crayfish season. There will be about 54,000 ha of earthen crayfish ponds in production during the 1987-88 season. Prices were low throughout the season averaging less than \$1.25 per kg. Some 30-40 % of the crayfish were harvested from ponds while the rest was harvested from natural waters. As much as 500 T of frozen boiled (dill flavored) crayfish was exported to Europe.

SWEDISH CRAYFISH ASSOCIATION ORGANIZED -- Arne Fjalling, Freshwater Research Institute, Drottningholm, Sweden, reports that a crayfish association has been organized to assist fishermen and farmers in managing and marketing their harvest, mostly signal crayfish, Pacifastacus leniusculus. Around 200 tons of crayfish is harvested annually in Sweden with projections to 800+ T in the next decade.

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CRAYFISHES OF MEXICO -- This book written originally by Alejandro Villalobos was translated from Spanish to English by Dr. Horton H. Hobbs, Jr. C. W. Hart of the Smithsonian Institution informs us that free copies are available to IAA members who will send a 3" x 5" card with their names and addresses to him at: Department of Invertebrate Zoology, Smithsonian Institution, Washington, D.C. 20560 USA.

MEMBERSHIP IN THE INTERNATIONAL ASSOCIATION OF ASTACOLOGY -- Membership is open to anyone interested in any phase of the study of crayfish biology, pure or applied. Fees are: regular member, \$25 US, student member, \$12.50 US, and Business, \$50 US. Current membership extends from August 1987-April 1990. Send inquiries about IAA to:

Jay V. Huner, Secretary-Treasurer IAA
P.O. Box 10809, Southern University
Baton Rouge, Louisiana 70813 USA

ADDENDA:

FRESHWATER CRAYFISH VI - The proceedings of the 1984 Lund IAA Congress are available. Cost is \$30 US plus \$5 US postage and handling. Order the proceedings from Professor Per Brinck, Ecology Building, University of Lund, S-223 62 Lund, Sweden.

UPCOMING MEETINGS DEALING WITH CRAYFISH -- National Aquaculture Conference October 22-23, 1987, Memphis Agricenter International Memphis, Tennessee USA (Contact Mr. Richard White.; Fish Farming Expo, November 21-23, 1987, New Orleans, Louisiana (Contact: Public Relations Group, Inc., 3801 Canal Street, Suite 208, New Orleans, Louisiana 70119 USA).

IAA MEETING, NEW ORLEANS, LOUISIANA DECEMBER 1987 -- The annual meeting of the American Society of Zoologists, American Microscopical Society, Animal Behavior Society, the Crustacean Society, INTERNATIONAL ASSOCIATION OF ASTACOLOGY, and the Society of Systematic Zoology will be held December 27-30, 1987 in New Orleans, Louisiana USA. IAA has participated in this joint meeting of North American zoologists for the past several years now. Local arrangements will be handled by Jay Huner: P.O. Box 10809, Southern University, Baton Rouge, Louisiana 70813 USA. Although there are no specific IAA paper sessions, IAA members will be interested in the crustacean egg session which will include several papers about crayfish presented by IAA members. An IAA informational booth will be set up and manned during the conference.

