Over the past few years, I have received many inquiries from IAA members about the Impact Factor (IF) for Freshwater Crayfish (FC), our society journal. Generally, the impact factor and other bibliometric measures (i.e., the immediacy index, the h index, among others) are used in most countries to evaluate the quality and prestige of research centers and authors. As such, the IF is increasingly being used by universities and other employers to evaluate personal scientific performance and overall research impact (i.e., Holden et al. 2006), even though this was not the original intent for developing this metric (Garfield 1955), and perhaps more importantly, the problems and criticisms of the metric’s use for this modified purpose (e.g., Seglen 1997).

In an initial analysis of FC and related crayfish publications, Vogt (2000) examined citation rates for FC volumes 1-11 as well as for the book edited by Holdich and Lowery (1988). At that time, he found that on average, these articles were cited once per day, which is pretty good, especially given the limited publication schedule of FC relative to other similar journals in our immediate field of study (i.e., Journal of Crustacean Biology; Crustaceana, etc.).

(Continued on page 4)
Dear IAA members,

Yet another year is rapidly drawing to a close and while 2009 has been a busy one for everyone, 2010 will also be a busy one, especially considering a major event in the IAA calendar is scheduled for mid-year: The 18th Symposium of the International Association of Astacology in Columbia, Missouri, USA. I have been receiving regular updates from the IAA18 Team, and just the other day I checked the latest updates to the very comprehensive IAA18 website. A number of key dates and deadlines regarding various important aspects of IAA18 are now available, and these include: deadlines for submission of abstracts, and of course registration for pre-conference workshops, the conference itself, and post conference tours. Apart from encouraging all members to try and attend IAA18 if possible (it is going to be a magnificent event), I encourage you check the IAA18 website regularly for updates (http://muconf.missouri.edu/iaa18/).

Of course, there is the usual discounted registration price for IAA members (and early-birds) which brings me to the topic of membership fees and renewals. Membership fees for the IAA 2-yearly membership cycle are now due, so please kindly remember to make the appropriate payment. Sadly the set-up of the IAA on-line credit card payment facility (PayPal) has not yet been completed (due to the rather complicated and unavoidable “red-tape”), but be assured it is still a priority of mine and the IAA. Feedback from a number of members has brought to my attention that paying membership fees can be complicated, and in some cases costly (due to bank fees), hence PayPal being a priority. In the absence of PayPal, if you wish to minimise inconvenience and expense, all attending members will of course be able to pay their membership fees in person at IAA 18 in July (cash only though please), more details closer to that time.

In addition to the important and typical activities at IAA Symposia, there will be an additional very important meeting at IAA18 (please see the article on page 3). This meeting, “The Future Directions Symposium” has been included in the program to allow discussion, consideration and debate of items concerning what direction the IAA and our associations journal, *Freshwater Crayfish*, might take in the future. The items for discussion and debate will be officially tabled at a Symposium on the 1st day of IAA18 (Monday, July 19th) with preliminary discussions, questions and comments sought from the audience. This will allow additional and informal discussion of the agenda items during the week by the membership, prior to final discussions and voting on these matters.

(Continued on page 3)

**IAA Board Members:**
In addition to the IAA Officers, the board includes Arnie Eversole (USA), Paula Henttonen (Finland), Jay Huner (USA), Julian Reynolds (Ireland), Stephanie Peay (UK) and Alastair Richardson (Tasmania).

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**Statements and opinions expressed in Crayfish News are not necessarily those of the International Association of Astacology.**

This issue edited by James W. Fetzner Jr.
during the IAA General Assembly on Friday (July 23rd). As the opinion and support of the IAA membership is essential for any such matters, and that discussion of these matters are important to the “Future Direction” of the IAA, please kindly refer to and consider the agenda items in the article on page 3 (below). Of course, if you are unable to attend IAA 18, arrangements will be made so that your questions and comments can be aired at the Symposium, and so that you can cast your vote.

I am reliably informed that production of *Freshwater Crayfish* 17 is progressing steadily, with the 1st of the page layouts being produced, and the editors are toiling away busily, but quietly, in the background. I encourage authors to check your proofs carefully when they arrive, and return them promptly when that time comes.

Finally, Christmas is just days away now, and I would like to wish you and your families a safe, restful, happy festive season, and of course a successful and Happy New Year for 2010. My very warmest regards to you all from the hot, very humid, yet very dry Gold Coast.

James M. Furse  
IAA President  
Griffith University  
The Gold Coast, Australia  
j.furse@griffith.edu.au

(Continued from page 2)
As we quickly approach publication of the 17th volume in the FC series (which should appear sometime before the end of 2010), it seemed appropriate to look into the impact factor for FC. Generating an IF for FC is not only appropriate for comparison of the scientific impact of our journal relative to other similar societies (e.g., The Crustacean Society), but also to aid researchers publishing in our society journal as they try to answer administrative inquiries related to their own performance appraisals.

What is an Impact Factor?

The impact factor was devised by Eugene Garfield (Garfield 1955), the founder of the Institute for Scientific Information (ISI), now part of Thomson Reuter. The impact factor is a measure of the frequency with which the "average article" in a journal has been cited in a given period of time (Garfield 2006). The impact factor for a journal is calculated based on a three-year period, and can be considered to be the average number of times published papers are cited up to two years after publication. Note that articles published earlier in the 2-year cycle have longer to contribute citations to the journal’s IF than those published late in the cycle.

How is an Impact Factor Calculated?

As an example, the impact factor in 2010 for a hypothetical journal would be calculated as follows:

\[ A = \text{the number of articles published in 2008 and 2009 that were cited in indexed journals during 2010.} \]

\[ B = \text{the number of articles, reviews, proceedings or notes published by the journal in 2008-2009.} \]

So the Impact Factor (IF) for 2010 = \( A/B \)

The IF for a journal is generally re-calculated each year, although this is not possible for FC, since it is currently only published once every 2 years.

METHODS

First, it should be noted that *Freshwater Crayfish* is not currently indexed by either the ISI Web of Science™ (WoS) nor, at the time this analysis was conducted (Aug 2009), by Scopus™. However, the IAA did hear from Scopus in the Fall of 2009 that they will start indexing *Freshwater Crayfish* starting from volume 16 onward. Both of these online services only index a portion of the currently published scientific journals, and thus, IF calculations are based only on the journals that these services actually index. In addition, the IF does not take into account citations that occur in books, journals or other publications that are not indexed by WoS.

Calculating a Pseudo Impact Factor for *Freshwater Crayfish*

Since FC is not included in the indexing services, and thus does not have a formal IF calculated, I have attempted to generate one myself using data from the WoS. This was done by searching the WoS database for articles that cited each FC volume in each year. Note that the ISI database only extends back to 1992, so IF values could not be calculated for volumes 1-7. Since FC is only published once every 2 years, it

\begin{table}
\centering
\begin{tabular}{|c|c|c|c|c|c|}
\hline
FC Volume & Papers & Pub Year & IF Year & Cites in IF Year & Impact Factor \\
\hline
1 & 24 & 1973 & 1975 & NA & NA \\
2 & 54 & 1975 & 1977 & NA & NA \\
3 & 40 & 1977 & 1979 & NA & NA \\
4 & 59 & 1979 & 1981 & NA & NA \\
5 & 59 & 1983 & 1985 & NA & NA \\
6 & 30 & 1986 & 1988 & NA & NA \\
7 & 54 & 1988 & 1990 & NA & NA \\
8* & 61 & 1995 & 1997 & 5 & 0.082 \\
9 & 54 & 1993 & 1995 & 8 & 0.148 \\
10 & 63 & 1995 & 1997 & 15 & 0.238 \\
11 & 61 & 1997 & 1999 & 13 & 0.213 \\
12 & 82 & 1999 & 2001 & 12 & 0.146 \\
13 & 56 & 2002 & 2003 & 6 & 0.107 \\
14 & 30 & 2004 & 2006 & 5 & 0.167 \\
15 & 40 & 2006 & 2008 & 7 & 0.175 \\
16 & 21 & 2008 & 2010 & pending & pending \\
17 & 40 & 2010 & 2012 & pending & pending \\
\hline
\end{tabular}
\caption{Table showing impact factors calculated for the journal *Freshwater Crayfish*. Impact factors for FC16 and FC17 have yet to be calculated since 2010 is the critical citation year for FC16 and FC17 has yet to be published. Impact factors for FC1 – FC7 cannot be calculated given the current limitations of the ISI Web of Science database.}
\end{table}
is relatively easy to calculate an IF for each FC volume that was published after the 1992 cutoff.

**RESULTS**

**Impact Factor for Freshwater Crayfish**

As mentioned earlier, an IF could only be calculated for FC8 through FC15. In addition, it is still too early to calculate an IF for FC16, data for which won’t be available till 2011 (Remember, 2010 is the critical year for calculating the IF for this volume). Table 1 shows the number of citations found in the WoS database by FC volume and the associated IF calculated for each.

Note that the IF fluctuates up and down over time. The highest IF for *Freshwater Crayfish* was recorded for volume 10 (proceedings of the Adelaide, Australia, 1994 meeting) at 0.238, while the lowest was for volume 8 (proceedings of the Baton Rouge, Louisiana, USA, 1990 meeting) at 0.082. The most recent IF for FC is that for volume 15, which is 0.175.

**Trends in Citation Rates Over Time**

It may also be interesting to look at the number of citations each year (1992-2009) for all volumes of FC (Table 2). In total, WoS indicates that papers cited FC articles 881 times during this 19 year period. During that time, citation rates increased, especially during 2000-2006 (with spikes in citation rates during those years corresponding closely with European CRAYNET meeting publications in the Bulletin Français de la Pêche et de la Pisciculture). However, it seems that citation rates have dropped off a bit in recent years (2007-2009), although the values for 2009 only takes into account the citations made during January-July, since this study was conducted in August of that year.
still being cited at a relatively high rate, with 78 citations (many after 2000) over 1992-2008 (Figure 1). In comparison, FC9 (published in 1993) was cited 221 times over that same time period. *Freshwater Crayfish* 12 was published in 1999, and contained the largest number of articles ever published in an FC volume (n = 82; Figure 3), and was cited 197 times from 2000-2008.

Citations by Author

It is also interesting to look at authors who regularly cite FC articles. Table 3 shows the top 30 researchers who cited FC articles in their primary research publications. Kudos go to Francesca Gherardi (and coworkers), who accounts for 5% of all FC citations by herself!! Related to this, we can also look at the authorship by country of articles that have cited FC papers. Authors from a total of 53 different countries have cited FC articles during the period of 1992-2008. The USA accounted for 18.5% of all articles that cited FC papers, followed by Australia (11.2%), Italy (6.9%), Spain (6.8%) and then the other 49 countries (see Figure 2).

Citations by Journal

We can also examine which of the WoS indexed journals cite FC articles most often. Table 4 lists the top 25 journals that have cited FC articles. The *Bulletin Français de la Pêche et de la Pisciculture* accounts for 122 citations (~14%) of the 881 citations during 1992-2008. This high rate of citation was driven by the publication of the European CRAYNET meeting proceedings in this journal, which occurred in 2002, 2004 and 2006. Also included in the top of the list are the *Journal of Crustacean Biology* and *Crustaceana*. Eighty-two percent of FC citations occurred in journal articles, 14.8% in proceedings, 2.4% were in review articles, and the remainders were in editorials, notes or letters.

DISCUSSION

Comparing Impact Factors

One way to compare the scientific importance of *Freshwater Crayfish* is to compare it to other similar journals in the same subject area. Perhaps the closest comparison can be made to *The Journal of Crustacean Biology* (JCB) and *Crustaceana*. In 2008, the impact factors for these journals were...

(Continued from page 5)

Table 3. List of top 30 astacologists (out of 956) who regularly cite *Freshwater Crayfish* articles in their publications.

<table>
<thead>
<tr>
<th>#</th>
<th>Author</th>
<th>Record Count</th>
<th>% of 881 Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GHERARDI, F.</td>
<td>44</td>
<td>4.99%</td>
</tr>
<tr>
<td>2</td>
<td>AUSTIN, CM</td>
<td>24</td>
<td>2.72%</td>
</tr>
<tr>
<td>3</td>
<td>CARRAL, JM</td>
<td>20</td>
<td>2.27%</td>
</tr>
<tr>
<td>4</td>
<td>GRANDJEAN, F.</td>
<td>20</td>
<td>2.27%</td>
</tr>
<tr>
<td>5</td>
<td>CELADA, J.D.</td>
<td>19</td>
<td>2.16%</td>
</tr>
<tr>
<td>6</td>
<td>SOULT-GROSSET, C.</td>
<td>16</td>
<td>2.94%</td>
</tr>
<tr>
<td>7</td>
<td>SAEZ-ROYUJUELA, M.</td>
<td>17</td>
<td>1.03%</td>
</tr>
<tr>
<td>8</td>
<td>NYSTROM, P.</td>
<td>16</td>
<td>1.82%</td>
</tr>
<tr>
<td>9</td>
<td>ANASTACIO, PM.</td>
<td>15</td>
<td>1.70%</td>
</tr>
<tr>
<td>10</td>
<td>HARLIQULI, MM.</td>
<td>15</td>
<td>1.70%</td>
</tr>
<tr>
<td>11</td>
<td>KAWAI, T.</td>
<td>14</td>
<td>1.59%</td>
</tr>
<tr>
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</tr>
<tr>
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</tr>
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<td>BARBARESI, S.</td>
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<tr>
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<td>KARPUS, I.</td>
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<tr>
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<td>BARKI, A.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>19</td>
<td>CERENIUS, L.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>20</td>
<td>CORREIA, A.M.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>21</td>
<td>EDGERTON, B.F.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>22</td>
<td>EVERSOLE, A.G.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>23</td>
<td>JONES, P.L.</td>
<td>11</td>
<td>1.25%</td>
</tr>
<tr>
<td>24</td>
<td>DIEGUEZ-URIBECONDO, J.</td>
<td>10</td>
<td>1.14%</td>
</tr>
<tr>
<td>25</td>
<td>FUREDER, L.</td>
<td>10</td>
<td>1.14%</td>
</tr>
<tr>
<td>26</td>
<td>HOLDICH, D.M.</td>
<td>10</td>
<td>1.14%</td>
</tr>
<tr>
<td>27</td>
<td>KOZAK, P.</td>
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<td>1.14%</td>
</tr>
<tr>
<td>28</td>
<td>REYNOLDS, J.D.</td>
<td>10</td>
<td>1.14%</td>
</tr>
<tr>
<td>29</td>
<td>TAYLOR, C.A.</td>
<td>10</td>
<td>1.14%</td>
</tr>
<tr>
<td>30</td>
<td>HUNER, J.V.</td>
<td>9</td>
<td>1.02%</td>
</tr>
</tbody>
</table>

(Continued on page 7)
were 1.109 and 0.450, respectively. The JCB is published quarterly and *Crustaceana* is published monthly. In 2008, JCB published 80 articles while *Crustaceana* published 125. In contrast, FC16 was also published in 2008 and it contained 21 articles (IF still pending for this volume). The IF of FC volumes may seem low (see Table 1), but when you compare the frequency of publication and the number of articles published by each, FC does not differ very much from these other journals. While FC publishes one volume in two years, JCB publishes 8 issues and *Crustaceana* publishes 24 issues during that same time period. These other journals also have a broader scope (i.e., all Crustacea), are able to generate more articles, and are more widely distributed and accessible. However, as an interesting note, in 2009, seven of the top 10 most accessed articles published in JCB were papers that had crayfish as the main topic (Schram 2009).

### How to Improve the FC Impact Factor

The best way to improve the IF of a journal is to have a bunch of citations to a volume of FC in the third year after publication. For example, in order to achieve an IF of 1.00 for FC16, a total of 21 citations to articles appearing in this volume would have to appear in ISI indexed journals during 2010.

Currently, most of the scientific community is unaware of the publication and availability of FC. Therefore, the IAA needs to do better at advertising the journal’s availability and help improve access to the articles by the scientific community. Increasing the distribution of FC might also aid recognition of the journal in the broader scientific community, leading to an increase in citation rates, and thus elevating its impact. For example, a fair number of articles are published related to crayfish neurobiology, yet few of these articles reference FC.

### How to Find the IF for a Specific Volume of FC

The calculated IF for FC volumes eight and onward will be displayed on the individual pages for each volume on the IAA website and will look similar to the figure at the right.

#### LITERATURE CITED


Holden G, Rosenberg G, Barker K and Onghena P. (2006). Should decisions about your hiring, reappointment, tenure, or promotion use the impact factor score as a

(Continued from page 6)


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**Short Articles**

**Effect of Female Selection on Progeny Survival and Growth Rate**

As a rule, when female crayfish are incubating their eggs, it is now possible to increase the survival of their offspring. In addition, these eggs are extremely valuable since they represent varying characteristics of viability, growth rate, adaptation to environment change, and many other important characteristics. The purpose of the artificial selection experiments described here is to select females as breeding stock for the production of more viable offspring.

In 2009, each crayfish farm in the village Glush began an experiment to select the best female crayfish (i.e., those that produced the most viable offspring). This was done by separating in-berry females into individual covered compartments that contained aeration, shelter, daylight and a daily feeding regime. We observed how each female looked after her eggs. In-berry females of the crayfish *Pontastacus leptodactylus* Esch. were kept under the same conditions, and it was possible to observe different behaviors in different females.

Some females were “calm” and spent a large portion of day inside the shelter constantly ventilating their eggs. Other females seemed “restless” and frequently left the shelters. The reason for this anxiety did not seem to be connected with the housing conditions. Restless females tended to pay less attention to their eggs, and this neglect resulted in a high level of egg mortality (approximately 60%), a level that was about twice that of the calm females. The offspring of each selected female contained a mix of large, average and small individuals. However, the proportion of large specimens was higher in the calm females. The offspring were separated from the females, and after two months the rate of growth was higher for the offspring of the calm females. "

Valery P. Fedotov  
(Russia)
A Silent Menace Hits Italian Indigenous Crayfish: Invasive Populations of *Procambarus clarkii* are Infected with *Aphanomyces astaci*

Last summer, extensive mass mortalities of the indigenous crayfish *Austropotamobius pallipes* were recorded in the Italian provinces of Teramo and Isernia (Abruzzo, Molise respectively). These events led conservationists and scientists to inquire, one more time, about the future of this important component of freshwater communities in Italy. In the last century, the species has been subject to a rapid decline due to a long list of causes (such as habitat degradation and fragmentation, anthropogenic activities, and over-exploitation), including the introduction of North American crayfish species. *Orconectes limosus*, *Pacificastacus leniusculus* and *Procambarus clarkii* have deleterious effects on crayfish diversity. Not only do they outcompete the European species but they are also vectors of the oomycete *Aphanomyces astaci* (Schikora 1903), the etiological agent of the “crayfish plague”.

Oddly in Italy, where crayfish mass mortalities induced by the parasite were first recorded in 1860, the occurrence of *A. astaci* has been hypothesized but never demonstrated, possibly because of the difficulties in both identifying the parasite and diagnosing the disease. Indeed, the cuticle of the crayfish host shows weakly melanized micro-spots that only occasionally can be detected. Besides, European infected crayfish die within a few days after infection, which makes the collection of fresh samples difficult.

Outside its natural range of distribution, North American crayfish act as the only reservoir of the pathogen, because *A. astaci* cannot survive long periods without its hosts and indigenous populations, once infected, quickly go extinct. In Italy, the red swamp crayfish, *P. clarkii*, is widespread, thus being a potential vector of *A. astaci*. But this has never been proven, until now.

Since 2008, a joint Italian-Spanish research group, under the support of the European Commission’s Research Infrastructure Action via SYNTHESYS Project (ES-TAF-3996), has worked to check for the occurrence of *A. astaci* in Italian populations of *P. clarkii*. Researchers used digital image analyses and image processing techniques in conjunction with *A. astaci* ITS nrDNA specific primers. The study revealed the presence of the pathogen in all the populations investigated. For the first time, *A. astaci* colonies on *P. clarkii* cuticle have been documented with high resolution images, confirming the role of this crayfish as a healthy vector of the disease. This result raises awareness for the threat that *P. clarkii* poses to the indigenous crayfish species and pinpoints the need for an effective bio-security policy to be applied in Italy. Appropriate measures should be taken to halt the spread of both the crayfish and *A. astaci*. Additionally, the general public should be informed about the practices that might avoid further spread of the pathogen.

Laura Aquiloni
Javier Diéguez-Uribeondo
and Francesca Gherardi

(Continued from page 3)

Recent steps to increase the standing and profile of *Freshwater Crayfish* include updated instructions to authors, a standardised publication format, allocation of an ISSN and acceptance of *Freshwater Crayfish* for abstracting and indexing in Elsevier’s SCOPUS & EMBASE products. The current publication frequency of *Freshwater Crayfish* is not well suited to acceptance by Thomson-Reuters for inclusion/ranking in the ISI-list.

It has been suggested (for many years now) that consideration should be given to moving away from the current publication “model” (i.e., the bi-annual proceedings publication), and increasing the publication frequency of *Freshwater Crayfish*, thus becoming a regularly scheduled journal (i.e., published at least annually or possibly twice annually, to start). Given the research effort on freshwater crayfish, and the number of freshwater crayfish related publications in other journals, there certainly appears to be sufficient demand to warrant this consideration.

Obviously, moving *Freshwater Crayfish* to a regularly scheduled journal would be a fairly major undertaking and would require, amongst other things, an editorial board and a dedicated editor (possibly with a small annual editorial salary, and associated budget). There are various, and successful, publication “models” used by other associations and journals, with these models addressing matters of finance/funding and format/access to the publication. The various models could be considered and/or modified to suit the needs of the IAA and *Freshwater Crayfish*. These models include levying of page charges, different classes of membership (i.e., membership only, membership plus journal, and the usual student discounts) with format/access options including (but not limited to) “on-line” only, on-line with strictly limited hardcopy print runs, or on-line with pre-ordered hardcopies only.

Other matters for discussion/consideration include 1) adopting an annual IAA membership cycle (as opposed to the current 2-yearly cycle), (This is important not only to help...
New Master’s Thesis

Hardee DC (2009). The effects of bait type, trap-soak duration, and trap modification on harvest of red swamp crawfish. MS Thesis. Louisiana State University, Agricultural and Mechanical College, School of Renewable Natural Resources. vi + 41 pp.

THESIS ABSTRACT

The effects of bait type, trap-soak duration, and a trap entrance modification were evaluated from February through May 2008 in a 1.29 ha crawfish (red swamp crawfish, Procambarus clarkii) pond in southwest Louisiana. Commercial pyramid traps with three entrance funnels, 1.9-cm square-mesh vinyl-coated welded metal wire, were used. In trial 1, crawfish catch was evaluated in traps baited with Atlantic menhaden (Brevoortia tyrannus), a formulated dry bait, or a menhaden+formulated bait mixture, each at 24-h and 48-h soak durations. In trial 2, the escape of marked crawfish was evaluated in the presence or absence of bait at 24-h and 48-h soak durations. In trial 3, the catchability of traps with modified entrances, designed to reduce crawfish escape, were evaluated at 24-h and 48-h trap-soak durations.

In trial 1, menhaden alone was the most effective bait in February and March, all baits were equally effective in April, and the formulated bait alone was most effective in May. Overall, crawfish catch per unit effort (CPUE) with a 24-h soak duration was 36% and 27% higher in number and weight than the 48-h soak. Mean crawfish size increased when trap-soak duration was increased from 24-h to 48-h. In trial 2, traps containing “no marked crawfish” caught significantly more crawfish in both number (37%) and weight (30%) than traps with marked crawfish indicating that the presence of crawfish in traps prior to baiting decreased catch. Mean crawfish escape from traps ranged from 29 to 34%, and the presence or absence of bait had no significant effect on escape; however, the mean escape rate following a 48-h trap-soak duration (39%) was nearly twice that of a 24-h soak (22%). Crawfish CPUE with modified traps was 20% higher with a 48-h trap-soak duration. Modification of the trap entrance funnels with plastic cable ties appeared to reduce the rate of crawfish egress from the traps between 24-h and 48-h.

We hope to see you at IAA18!


Meeting Announcements

21st International Senckenberg Conference

Biology of Freshwater Decapods, Frankfurt am Main, Germany, December 8 - 10, 2010

Dear colleagues interested in freshwater decapods:

An International conference on the biology of freshwater decapods will be held at the Senckenberg Research Institute (Frankfurt, Germany) during December 8-12, 2010. We (Neil Cumberledge, Peter Ng, and myself) invite all interested persons to this conference. You can find more information on the conference homepage: http://www.senckenberg.de/freshwater_decapods/. ♪

Michael Tuerkay
michael.tuerkay@senckenberg.de
the Margaret River (Western Australia). *Crustacea* 82 (11): 1469-1476.


Hesselschwerdt J, Tscharner S, Neckel J and Wantzen KM (2009). A local gammarid uses kairomones to avoid predation by the invasive crustaceans *Dikerogammarus villosus* and *Orconectes limosus*. *Biological Invasions* 11(9):2133-2140.


Orr MV, Hittel K and Lukowiak K (2009). 'Different strokes for different folks': Geographically isolated strains of *Lymnaea stagnalis* only respond to sympatric predators and have different memory forming capabilities. *Journal of Experimental Biology* 212(14):2237-2247.


Sadykova D, Skurdal J, Sadykov A, Taubol T and Hessen DO (2009). Modelling crayfish population dynamics using...
Literature of Interest to Astacologists


de Graaf M, Lawrence C and Vercoe P (2009). Rapid replacement of the critically endangered hairy marron by the introduced smooth marron (*Decapoda, Parastacidae*) in...