

Biological and Integrated Control of Water Hyacinth, *Eichhornia crassipes*

**Proceedings of the Second Meeting of the Global Working
Group for the Biological and Integrated Control of Water
Hyacinth, Beijing, China, 9–12 October 2000**

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and Ding Jianqing**

Sponsored by: International Organization for Biological Control

Organised by: Institute of Biological Control, Chinese Academy of
Agricultural Sciences

Supported by: National Natural Scientific Foundation of China
Chinese Academy of Agricultural Sciences

Australian Centre for International Agricultural Research
Canberra 2001

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Julien, M.H., Hill, M.P., Center, T.D. and Ding Jianqing, ed. 2001. Biological and Integrated Control of Water Hyacinth, *Eichhornia crassipes*. Proceedings of the Second Meeting of the Global Working Group for the Biological and Integrated Control of Water Hyacinth, Beijing, China, 9–12 October 2000. ACIAR Proceedings No. 102, 152p

ISBN 1 86320 319 2 (print)
1 86320 320 6 (electronic)

Contents

Address of Welcome	5
Editorial	6
Biological Control of Water Hyacinth with Arthropods: a Review to 2000 <i>M.H. Julien</i>	8
Biological Control of Water Hyacinth by Using Pathogens: Opportunities, Challenges, and Recent Developments <i>R. Charudattan</i>	21
Water Hyacinth in China: Its Distribution, Problems and Control Status <i>Ding Jianqing, Wang Ren, Fu Weidong and Zhang Guoliang</i>	29
Biological Control Initiatives against Water Hyacinth in South Africa: Constraining Factors, Success and New Courses of Action <i>M.P. Hill and T. Olckers</i>	33
Recent Efforts in Biological Control of Water Hyacinth in the Kagera River Headwaters of Rwanda <i>T.M. Moorhouse, P. Agaba and T.J. McNabb</i>	39
Ongoing Activities in the Biological Control of Water Hyacinth in Egypt <i>Y.H. Fayad, A.A. Ibrahim, A.A. El-Zoghby and F.F. Shalaby</i>	43
Progress with Biological Control of Water Hyacinth in Malawi <i>P.M. Phiri, R.K. Day, S. Chimatiro, M.P. Hill, M.J.W. Cock, M.G. Hill and E. Nyando</i>	47
Biological Control of Water Hyacinth by a Mycoherbicide in Egypt <i>Y.M. Shabana, M.A. Elwakil and R. Charudattan</i>	53
IMPECCA: an International, Collaborative Program to Investigate the Development of a Mycoherbicide for Use against Water Hyacinth in Africa <i>R. Bateman</i>	57
Fungi Associated with <i>Eichhornia crassipes</i> (Water Hyacinth) in the Upper Amazon Basin and Prospects for Their Use in Biological Control <i>H.C. Evans and R.H. Reeder</i>	62
A Water Hyacinth Resource Manual <i>G. Hill and R. Day</i>	71
Water Hyacinth Information Partnership for Africa and the Middle East <i>L.A. Navarro</i>	72
Can Competition Experiments Be Used to Evaluate the Potential Efficacy of New Water Hyacinth Biological Control Agents? <i>T.D. Center, T.K. Van, and M.P. Hill</i>	77

How Safe Is the Grasshopper <i>Cornops aquaticum</i> for Release on Water Hyacinth in South Africa? <i>I.G. Oberholzer and M.P. Hill</i>	82
Establishment, Spread and Impact of <i>Neochetina</i> spp. weevils (Coleoptera: Curculionidae) on Water Hyacinth in Lake Victoria, Kenya <i>G.S. Ochiel, S.W. Njoka, A.M. Mailu and W. Gitonga</i>	89
Water Hyacinth Population Dynamics <i>J.R. Wilson, M. Rees, N. Holst, M.B. Thomas and G. Hill</i>	96
Current Strategies for the Management of Water Hyacinth, <i>Eichhornia crassipes</i> on the Manyame River System in Zimbabwe <i>G.P. Chikwenhere</i>	105
Biomass and Productivity of Water Hyacinth and Their Application in Control Programs <i>E.L. Gutiérrez, E.F. Ruiz, E.G. Uribe and J.M. Martínez</i>	109
Water Hyacinth Control through Integrated Pest Management Strategies in Tanzania <i>G. Mallya, P. Mjema and J. Ndunguru</i>	120
Integrated Control of Water Hyacinth (<i>Eichhornia crassipes</i>) on the Nseleni/Mposa Rivers and Lake Nsezi, Kwa Zulu-Natal, South Africa <i>R.W. Jones</i>	123
Preliminary Assessment of the Social, Economic and Environmental Impacts of Water Hyacinth in Lake Victoria Basin and Status of Control <i>A.M. Mailu</i>	130
Biological Control of Water Hyacinth by <i>Neochetina eichhorniae</i> and <i>N. bruchi</i> in Wenzhou, China <i>Lu Xujian, Fang Yongjun, Song Darong and Xia Wanqing</i>	140
Session Summaries	141
Sessions 1 and 2. Keynote papers and Biological control—general	142
Session 3. Biological control—pathogens	146
Session 4. General	148
Session 5. Biological control—insects	149
Session 6. Integrated management	151

Address of Welcome

Good morning, ladies and gentlemen

On the occasion of this splendid autumn season in Beijing, it is a great pleasure for all of us to greet the opening of the Second Global Working Group Meeting for the Biological and Integrated Control of Water Hyacinth, held under the auspices of the International Organization of Biological Control (IOBC). On behalf of the Biological Control Institute of the Chinese Academy of Agricultural Sciences, please allow me to extend our warm congratulations. I sincerely wish the meeting a great success.

As is known to all, water hyacinth is one of the most dangerous weeds in the world, causing great damage to agriculture, aquatic production, tourism and the environment in over 40 countries including China. Currently in China, water hyacinth grows in 17 provinces, and millions of dollars are spent on its control every year. Although China has made great efforts and achieved remarkable progress in the biological and integrated control of water hyacinth, the weed is still spreading into new regions at an alarming speed. As this working group meeting provides a good opportunity for mutual exchange of information and experiences in the field of water hyacinth control among the delegates and scientists from various countries, I am sure that a successful meeting will not only promote the research work on water hyacinth control in China, but also help advance research activities on global water hyacinth control into a new phase. Therefore, it is essential that the working group meeting be held regularly so that scientists and experts from different countries and regions can get together and cooperate in finding good solutions to the worldwide problem of water hyacinth.

Finally, I'd like to wish everyone a nice stay in China.

Thank you.

*Professor Yang Huaiwen,
Director of the Biological Control Unit,
Chinese Academy of Agricultural Sciences*

Editorial

These are the papers presented at the Second Global Working Group Meeting for the Biological and Integrated Control of Water Hyacinth, held in Beijing, China in October 2000 under the auspices of the International Organization for Biological and Integrated Control of Noxious Animals and Plants (IOBC). The meeting brought together 31 delegates from 11 countries with the common purpose of identifying suitable biological and integrated control options for water hyacinth.

These proceedings represent the current status of work on water hyacinth worldwide and include new research initiatives, overviews of water hyacinth implementation programs in various countries and a proposal for a mechanism to facilitate the dissemination of information on water hyacinth through a clearinghouse. The papers, which were each refereed by at least two of the editors, were presented under a series of themes. The salient points from each of the papers were then summarised at the end of the theme session. These summaries are included in the proceedings. Nevertheless, much of the discussion that occurred at these workshops is not recorded here. The address list appended to the proceedings will, it is hoped, stimulate further interaction between the delegates. We are very grateful to the Australian Centre for International Agricultural Research (ACIAR) for supporting the preparation and publication of these proceedings.

One of the roles of this working group is to identify further research needs on water hyacinth. From the presentations and discussions the following ideas emerged as requiring further investigation.

- The impact of cold climates on the success of biological control. Investigation of the thermal tolerance of the natural enemies used was suggested, and of the value of collecting biological control agents from climatically similar localities. Also, studies of the impact of releasing large numbers of healthy, fertile females through the winter to obviate the lag time in population build-up of the weevils following cool winters were suggested.
- The use of plant competition studies between water hyacinth and other aquatic plants as an indicator of how effective particular agents are.
- The compatibility of the different control options that could be used in integrated management.
- The compatibility of each biological control agent with each of the herbicides likely to be used and their surfactants.
- The selection of suitable locations and undertaking of integrated management of water hyacinth where biological control is the base technique. This has been done in South Africa in a temperate climate (Jones, these proceedings). The Kafue River, where various agents are established but control has not been successful, offers an opportunity in the tropics.
- Identification and conduct of surveys for additional natural enemies (both insects and pathogens) in new areas in the region of origin of water hyacinth.
- The interactions between the insect natural enemies with the pathogen natural enemies.

- The development of mycoherbicide for water hyacinth. It is hoped that the IMPECCA project (Bateman, these proceedings) will achieve this goal.
- Quantification of the contribution of *Orthogalumna* to biological control in the field. Studies in Malawi may be the first step in this.
- Quantification of the impact of *Eccritotarsus* in the field.

The workshop closed with a general meeting of the working group (the participants). During the meeting it was suggested that a mission statement for the working group be developed and this was done (see below). It was also decided that the next meeting should be held in Uganda on the shores of Lake Victoria in early August 2002.

Mission Statement

The mission of the IOBC Working Group for the Biological and Integrated Control of Water Hyacinth is to promote better management of water hyacinth through:

- facilitation of interactions,
- dissemination of information, and
- identification of research needs.

This will be achieved by:

- holding a meeting every 2 to 3 years,
- publishing the meeting proceedings, a water hyacinth newsletter and maintaining web site, and
- supporting activities that contribute to better management of water hyacinth.



Meeting participants

Front row (left to right): Wu Zhenquan, Chen Ruoxia, Joseph Ndunguru, Gasper Mallya, Raghavan Charudattan, Fu Weidong, Ding Jianqing, Peter Mjema and Xia Shanlong.

Back row (left to right): Lu Qingguang, Wang Qinghai, Sun Junmao, Ma Ruiyan, Tom Moorehouse, Tom McNabb, Eric Gutiérrez, Garry Hill, Yahia Fayad, Ted Center, Roy Bateman, Lius Navarro, Harry Evans, Richard Shaw, Godfrey Chikwenere, John Wilson, Roy Jones, Mic Julien, Andrew Mailu and Martin Hill.