

# HAUSTORIUM

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### MESSAGE FROM THE IPPS PRESIDENT

Dear IPPS Members,

2010 is here, with promise of a new year and a new decade. The IPPS officers have been working hard to realize some longstanding goals that will strengthen our society to form a solid foundation for the future.

The most noticeable change for this year is the unveiling of our new IPPS website (<http://www.parasiticplants.org>). We obtained this permanent URL and now have a professional web manager who is able to give it high quality features and timely upgrades. I can safely say that the old webmaster (yours truly) was not up to the job in terms of skill or time commitment. He was rightfully sacked (and is glad to be relieved of the burden!).

A nice feature of the new website is an emphasis on parasitic plant photos. We all know that these organisms are both beautiful and intriguing; photos are a great way to attract interest in the site and provide information to visitors. Each time the page reloads you will see new photos in the banner and the main part of the page. To find full images, plant names and photo credits, click on the "Photos" button of the menu. We are happy to add more, so I invite all of you to send me a few of your favorite parasite photos.

Another move forward for our society is the development of an improved dues system. Although perhaps less thrilling than parasitic plant photos, this matter is critical to our functioning as a society. In the past, dues were primarily collected along with conference registration, so everyone who attended a conference automatically became a member. However, payment of dues outside of a conference registration was inconvenient and expensive, especially in the large percentage of cases involving an international money transfer, so anyone who missed a conference would end

up in a limbo of lapsed membership. The result was confused members and a society with no fair way of determining who its active members were. The new website will solve this by providing a secure system for payment based on the PayPal tool, which is simple, inexpensive, and familiar to most people. By improving the ease of paying and establishing a predictable cycle, we can stabilize our active membership and reach out to potential members who are not regular attendees of our conferences.

Discussing dues is probably next to discussing taxes in terms of dampening people's interest, but it's important nevertheless. The new standard membership rate of 30 Euros for two years is still a modest price, and will enable IPPS to provide better services to members. Members will receive discounts on meeting registration that will more than offset the cost of dues, and will enjoy benefits of a stronger society. IPPS will use dues in many ways: to keep the website evolving to meet new needs, to provide grants that help students and other deserving members attend our conferences, to expand the prizes for best posters at conferences, and to continue our practice of honoring our outstanding members.

I will end with a reminder that this is your society. Input is always valued, so if you have ideas on what features we should have on the website or how we should collect and allocate our resources, please don't hesitate to write.

Sincerely,

Jim Westwood, IPPS President  
[westwood@vt.edu](mailto:westwood@vt.edu)

**LORANTHUS EUROPEAUS, NEW TO BRITAIN,  
AND NOTES ON VISCUM ALBUM, BOTH NEW  
TO KEW GARDENS**

There has been a flurry of short reports recently on the curious appearance of the central-southern European mistletoe *Loranthus europaeus* at the Royal Botanic Gardens, Kew. These include Spooner (2009), Clement (2008), Cope (2008) and Nelson (2008), though the original report was by Vines (2006). In summary *L. europaeus*, previously unknown in Britain, was discovered, as a mature plant, growing on a young *Quercus velutina* (black oak) at Kew in May 2005. Its origin is a mystery; the oak, an American species, was grown from seed at Kew and the mistletoe was probably deliberately introduced, albeit unofficially

Vines (2006), and Clement (2008) quoting Vines, mention a previous occurrence of *L. europaeus* at Kew in the 1870s. Nelson (2008) and Cope (2008) correct this assertion, quoting original correspondence that shows the 1870s *Loranthus* records were actually from the Glasnevin Botanic Gardens in Dublin. Clement adds, however, that there are other records for *Loranthus* at Kew for the late 19th/early 20th century period. All these *L. europaeus* plants were, apparently, very short-lived.



Fig 1. *Loranthus europaeus*

The recent discovery of the Kew *Loranthus* coincided with, and may even have been prompted by, an initiative I'm involved in to establish *Viscum album* at

Kew and other London sites. Before this initiative *V. album* had been entirely absent from the Kew Gardens inventory. This was a curious omission, partly because *V. album* is a regular feature of Botanic Gardens across the British Isles, even those well outside its natural British range (well-known examples include Edinburgh BG, Cambridge BG and Glasnevin BG at Dublin) but largely because *V. album*'s biggest London population, established at least 200 years, is around Bushy and Home Parks at Hampton Court and so very close to Kew. The 2004/5 initiative to establish *Viscum* at Kew was part of the original London Biodiversity Plan (London Biodiversity Partnership 2007), which had designated mistletoe as a Priority Species within Greater London on the basis of its rarity and popularity. New, managed, *Viscum* populations have been established as part of this initiative at Chelsea Physic Garden, Lambeth Palace Garden, Buckingham Palace Garden, Down House and several other London sites as well as Kew. All these new *Viscum* colonies are very young, and will not be apparent to visitors for a few years yet.

So Kew Gardens has recently acquired two species of mistletoe, one each from the two main mistletoe families - and has the distinction of being the only site



Fig. 2. *Viscum album*

(any other records out there?) for *L. europaeus* in Britain. If the *Loranthus* thrives (unlikely on historic precedent) Kew could become a site of 'pilgrimage' for

those wishing to compare these two mistletoes in Britain as they are, in many ways, very similar. The *Loranthus* has a similar branching pattern to *Viscum* but has brown, not green, stems. Leaf shape for the *Loranthus* is broader and leaves are not so obviously paired as in *Viscum*. Flowers in both species are small and green, so this *Loranthus* is very different to the tropical Loranthaceae with their more showy flowers. And then there are the fruits; similar-sized single-seeded berries, yellow in the *Loranthus* and creamy-white, of course, in the *Viscum*. They are often known as the yellow-berried and white-berried mistletoes respectively. Host preferences are very different - but the biggest difference has to be the fact that the *Loranthus* is deciduous, not evergreen.

Similarities and differences are not just botanical - they have an oddly overlapping role in legend too. Mistletoe on oak was, according to Pliny, sacred to the Druids, the priest caste of the Celts in Britain and Brittany; and James Frazer (1922) in *The Golden Bough* quotes 'Thus among the Celts of Gaul the Druids esteemed nothing more sacred than the mistletoe and the oak on which it grew'. They are generally assumed to have worshipped it at the winter solstice (though it is uncertain that Pliny actually states this). *Loranthus* is frequent on oak; *Viscum* is very rare on oak. And *Loranthus* is native to the areas of Europe where the Celtic tribes originated, so it is possible that they would be familiar with this species on their oaks. But *Loranthus* isn't evergreen, so it would have relatively little significance, compared to the evergreen *Viscum*, at midwinter. So which is the true mistletoe of the druids? Perhaps the druidic tradition is based on a combined folk memory of both these European species - but we only have Pliny's writings to draw on, and those are not necessarily accurate!

Jonathan Briggs

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## References

- Clement, E.J. 2008. A missing mistletoe reappears. *BSBI News* 108: 44.
- Cope, T. 2008. A missing mistletoe: a correction. *BSBI News* 109: 55.
- Frazer, J.G. 1922. *The Golden Bough – a study in magic and religion*. New York, Macmillan..
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- Spooner, B.M 2009. *Loranthus europaeus*: a gall causer new to Britain. *Cecidology* 24(2): 53-54.
- Vines, G. 2006. Mysterious mistletoe. *Kew Magazine* (Winter): 12-13.

## BIOCONTROL OF *STRIGA*

Mycorrhizal fungi have for many years been identified as possible agents for controlling *Striga*. Jürgen Kroschel and colleagues (Kroschel et al, 1996) identified what became known as *Fusarium oxysporum* f. sp. *strigae* isolate Foxy 2 and have undertaken intensive development work on this organism as a potential mycoherbicide for *Striga hermonthica* and *S. asiatica*. The Real IPM Company (K) Ltd ([www.realipm.com](http://www.realipm.com)) is a biocontrol company based in Kenya, which has developed various potential bio-pesticides as well as producing predatory mites such as *Phytoseiulus persimilis* for use by the horticultural industry in Kenya.

In 2009, in collaboration with the University of Hohenheim, The Real IPM Company (K) Ltd was awarded a match-funded grant from the African Enterprise Challenge Fund (<http://www.aecfafrica.org/>) to commercialise Foxy 2 as a mycoherbicide. All 'pest controlling products' which include all bio-pesticides require registration with the Kenyan authorities (Pest Control Products Board) ([www.pcpb.or.ke](http://www.pcpb.or.ke)) which includes compiling a full toxicology package on the fungi as well as undertaking independent efficacy trials. This process has begun and hopefully will lead to full registration in 2010 of what we think will be the first commercially available mycoherbicide in Africa!

Late in 2009 UK Department for International Development (DFID)'s Research into Use programme ([www.researchintouse.com](http://www.researchintouse.com)) launched a Best Bets competition with the objective of fast-tracking 'best bet' research findings and getting them into use in developing countries. A multi-partner bid (Real IPM, Greendown House Ltd, Bangor University, University of Hohenheim and KARI) were successful in proposing a strategy whereby farmers will undertake "on farm" seed priming with an enriched phosphate solution of their own farmer saved seed (e.g. maize, sorghum, millet), a technique developed by David Harris at Bangor (Harris, 2006) and then treat the seed immediately prior to planting with the Foxy 2 isolate to combat *Striga*. The product will be sold to farmers in an easy to use, low-cost pack, designed for the small scale subsistence grower.

## References:

- Harris, D. 2006. Development and testing of 'On Farm' seed priming. *Advances in Agronomy* 90: 129-178.

Kroschel, J., Hundt, A., Abbasher, A.A. and Sauerborn, J. 1996. Pathogenicity of fungi collected in northern Ghana to *Striga hermonthica*. *Weed Research* 36(6): 515-520.

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### GEBISA EJETA – WORLD FOOD PRIZE

To see a CNN clip covering Gebisa's award see: <http://awearnessblog.com/2009/11/draft-world-food-prize-award-w.php>

And for a tribute and other coverage from the Purdue Agricultural Newspaper 'Connections' see: [http://www.agriculture.purdue.edu/connections/fall2009/01\\_world\\_food\\_prize\\_winner\\_01.shtml](http://www.agriculture.purdue.edu/connections/fall2009/01_world_food_prize_winner_01.shtml)

### COST 849 - PARASITIC PLANT MANAGEMENT IN SUSTAINABLE AGRICULTURE

This programme, funded by the European Union via European Science Foundation, and concerned with the problems from *Orobanche* and *Phelipanche* in Europe was wound up in 2006. However, programmes, abstracts and reports of meetings are still available on the COST849 web-site (<http://cost849.ba.cnr.it/>) and a further final output has just been published in the form of a special issue of *Weed Research*, Volume 49, Supplement 1. The papers included in this supplement, each of which is reviewed under Literature below, are:

- Rubiales, D. *et al.* Parasitic plant management in sustainable agriculture. pp. 1-5.
- Joel, D.M. The new nomenclature of *Orobanche* and *Phelipanche*. pp. 6-7.
- Pérez-de-Luque, A. *et al.* Understanding *Orobanche* and *Phelipanche*–host plant interactions and developing resistance. pp. 8-22.
- Kohlschmid, E. *et al.* Impact of *Fusarium oxysporum* on the holoparasitic weed *Phelipanche ramosa*: biocontrol efficacy under field-grown conditions. pp. 56-65.
- Rubiales, D. *et al.* Revisiting strategies for reducing the seedbank of *Orobanche* and *Phelipanche* spp. pp. 23-33.
- Hershenhorn, J. *et al.* *Phelipanche aegyptiaca* management in tomato. pp. 34-47.
- Vaz Patto, M.C. *et al.* Extent and pattern of genetic differentiation within and between European populations of *Phelipanche ramosa* revealed by amplified fragment length polymorphism analysis. pp. 48-55.

Dita, M.A. *et al.* Gene expression profiling of *Medicago truncatula* roots in response to the parasitic plant *Orobanche crenata*. pp. 66-80.

Castillejo, M.A. *et al.* Comparative proteomic analysis of *Orobanche* and *Phelipanche* species inferred from seed proteins. pp. 81-87.

### PRESS RELEASE

**‘Save Share Nigeria: SS TF KKM project - Changing lives in the savannah’** 8th January 2010. (Extract)

Despite the plethora of challenges facing the savannah region of West Africa, agricultural research is helping in transforming the lives of millions of resource poor farmers in those areas. The deployment of improved seeds backed by the dissemination of innovative agricultural practices is helping in changing the fortunes of farmers in northern Nigeria—a savannah region where agriculture is the main source of livelihood—thanks to the International Institute of Tropical Agriculture and partners working on the Sudan Savanna Task Force of the Kano- Katsina-Maradi (SS TF KKM) Pilot Learning Site (PLS) of the Sub-Saharan Challenge Program. Local farmers say the improved seeds have raised their incomes, improved health and agricultural productivity. "My family is happy I am now a successful farmer. I can easily feed my family and send my children to school," says Mohammed Mustapha, a farmer in Kunamawa village in Safana Local Government of Katsina State. As a participant in the SS TF KKM PLS project, Mustapha has seen his yield double using the same plot of land but with improved varieties and agronomic practices. "This was possible due to the training and also the improved seeds I acquired from the Sudan Savannah Task Force team that are working on the KKM project. Before I used to get two bags of cowpea from this field but in 2009, I harvested five bags which were more than double the initial amount," he explains. For Hajia Binta Garba, who heads a women farmer group in Bunkure Local Government Area of Kano State, the drought- and *Striga* -tolerant varieties are helping farmers in her farm group to overcome the negative effects of climatic change in the region. She says the varieties which are either early-maturing or drought-tolerant have raised yield by more than 100 percent. "I used to get one and half bags of cowpea but now I harvest nothing less than four bags on this field," Garba says. Like Mustapha and Garba, several farmers in northern Nigeria are tapping the opportunities presented by improved seeds and agronomic practices to better their livelihoods.

The SS TF KKM project, which is funded by the Forum for Agricultural Research in Africa, (FARA) is seeking to mitigate these constraints and also to enhance marketing opportunities for farmers in the region. Partners in the project include the Katsina State Agricultural Development Programme (ADP), Institute of Agricultural Research, Zaria; National Agricultural Extension Research and Liaison Services, National Animal Production Research Institute, Bayero University Kano, Local Government Councils and input and output dealers. Alpha Kamara, IITA-Savanna System Agronomist who is the Sudan Savannah Taskforce Leader, says the dissemination of the solutions is helping in boosting crops' productivity and generating wealth in the drought-prone regions of the savannas. According to him, the team is tackling the limitations via innovation platforms in a holistic manner. For instance, the deployment of drought-tolerant cowpea and maize varieties is helping in mitigating the effect of drought, offering farmers improved harvest and incomes.

Consultative Group on International Agricultural Research (CGIAR)

### BOOK

**Die Mistel in der Tumorthherapie 2: Aktueller Stand der Forschung und klinische Anwendung. (Mistletoe in Cancer Therapy 2: Current state of research and clinical application.)** Edited by Scheer, R., Alban, S., Becker, H., Holzgrabe, U., Kemper, F.H., Kreis, W., Matthes, H. and Schilcher, H. KVC Verlag, Essen, Germany. 642 pp. ISBN 978-3-933351-82-1 / 39 EUR. This volume is based on the meeting held in 2007 and reported in *Haustorium* 53. The 48 chapters on mistletoe (*Viscum album*) and its potential applications in cancer therapy (all in German but with English summaries) are listed here by their English titles:

- Kreis, W. - Advances in structure elucidation of mistletoe constituents. pp. 17-29  
 Kirchner, C. *et al.* - Regulatory options for *Viscum album* L. preparations. pp. 3-13.  
 Ramm, H. - Influence of soil chemical factors on the cultivation of oak mistletoe (*Viscum album* on *Quercus robur* and *petraea*) and host specific mineral concentrations of mistletoe extracts. pp. 31-40.  
 Stoll, G. - Biochemistry and molecular biology of mistletoe-host tree interaction and specificity. pp. 41-48.  
 Dorka, R. *et al.* - Chronobiological phenomena and jasmonate levels in *Viscum album* L. pp. 49-66.

- Urech, K. *et al.* - Viscotoxin and mistletoe lectin contents in *Viscum album* L. - pharmaceutical implications. pp. 67-78.  
 Pfüller, U. *et al.* - Glycan motives of mistletoe lectins of the RIP II type and their biological relevance. pp. 79-90.  
 Pfüller, U. *et al.* - Self-cleavage of mistletoe lectin I into the A and B subunits by thiol-disulfide exchange reaction. pp. 91-97.  
 Classen, B. *et al.* - Interaction of lectin from *Viscum album* L. with arabinogalactan-proteins from *Echinacea purpurea* L. Moench. pp. 99-108  
 Adler, M. *et al.* - Immuno-PCR - highly sensitive protein detection: results of the detection of native mistletoe lectin in human serum samples. pp. 109-120.  
 Herbst, B. *et al.* - Characterization of arabinogalactan-proteins from *Viscum album* L. berries and herb. pp. 121-132  
 Jäger, S. *et al.* - Characterisation and quantification of polysaccharides in extracts from *Viscum album* L. with CE-UV. pp. 133-139.  
 Vrânceanu, M. *et al.* - Formation of colloidal structures during drop impact in a pharmaceutical flow process. pp. 141-153. pp. 155-164.  
 Gutsch, J. *et al.* - Observation study on treatment with standardized *Viscum album* extracts (VA-E) in lymphocytic non-Hodgkin's lymphoma (CLL) - safety and course. pp. 455-465.  
 Grah, C. *et al.* - Induction of apoptosis in exophytic tumour tissue through intra-lesional *Viscum* instillation in bronchial carcinoma. pp. 375-384.  
 Orange, M. *et al.* - The importance of the primary dosage in mistletoe therapy. pp. 385-400.  
 Längler, A. *et al.* - The use of mistletoe-preparations in paediatric oncology - epidemiology and actual practice. pp. 401-402.  
 Huber, R. *et al.* - Pharmacokinetics of mistletoe lectins - a phase I study. pp. 405-406.  
 Hagens, C. V. *et al.* - Treatment with mistletoe extract in patients with breast cancer, a feasibility study to identify surrogate parameters for further studies - design and first results on recruitment, compatibility and safety. pp. 407-416  
 Glenz, A. *et al.* - Willingness for the participation in a randomized study on mistletoe treatment - results of a survey including 165 cancer patients from a German university women's hospital. pp. 417-425.  
 Stumpf, C. *et al.* - Comparison of survival time of patients with different tumor entities - results of retrospective investigations for efficacy of mistletoe therapy vs. data from a tumor registry. pp. 441-453.  
 Seifert, G. *et al.* - Molecular mechanisms of mistletoe plant extract-induced apoptosis in acute lymphoblastic leukemia in vivo and in vitro. pp. 243-244.

- Müller-Hübenthal, B. *et al.* - What rank has anthroposophic mistletoe therapy in modern multimodal oncological therapy concepts? A position assessment under clinical aspects. pp. 261-273.
- Holzhauser, P. - Significance of lectin-standardized mistletoe therapy in oncology - a tool for the management of adverse effects. pp. 275-284.
- Kienle, G.S. and Kiene, H. - Systematic reviews on mistletoe in cancer and implications for future research. pp. 285-293.
- Horneber, M. *et al.* - Randomized controlled trials with mistletoe extracts in cancer therapy - a systematic review. pp. 295-307.
- Grah, C. - Efficacy and safety of pulmonary sarcoidosis treatment with *Viscum album* L. - a case control series. pp. 335-351.
- Kuehn, J.J. - Efficacy and risk estimation of subcutaneous mistletoe treatment (*Viscum album* L. Pini) in patients with non-Hodgkin's Lymphoma, a retrospective controlled case study. pp. 353-373.
- Winkler, K. *et al.* - Interactions of viscotoxins with vesicles of genuine membranes of mistletoe. pp. 165-172.
- Jäger, S. - Aqueous mistletoe preparations with a high content of oleanolic acid and betulinic acid. pp. 173-182.
- Klein, R. *et al.* - Effects of mistletoe extracts on immunocompetent cells in vitro and in vivo. pp. 185-201.
- Kovacs, E. *et al.* - The effect of *Viscum album* extract and vincristine on the proliferation in several multiple myeloma cell lines - function of IL-6 and IL-10 in the proliferation. pp. 203-204.
- Kelter, G. - Antitumor activity of mistletoe products and absence of tumor growth stimulation in human tumor cell lines in vitro. pp. 205-218.
- Simões-Wüst, A.P. *et al.* - Long-lasting cytotoxic effects of a single application of aqueous extracts from dried *Viscum album* L. on bladder cancer cells in an in vitro system. pp. 219-228.
- Strüh, C. *et al.* - Inhibitory effects of solubilized triterpene acids from *Viscum album* L. on murine and human skin cell lines. pp. 229-242.
- Büssing, A. *et al.* - Decreased in vitro susceptibility of patients' B-CLL cells towards the applied *Viscum album* extract. pp. 467-475.
- Eisenbraun, J. *et al.* - Quality of life in breast cancer patients during chemotherapy and concomitant therapy with a mistletoe-extract of the apple tree. pp. 495-507.
- Tröger, W. *et al.* - Additional therapy with mistletoe extracts in breast cancer patients receiving chemotherapy - a prospective randomized open label pilot study. pp. 509-521.
- Büssing, A. *et al.* - Correlation between distinct immune parameters, tumour staging and quality of life. pp. 523-535.
- Grossarth-Aticek, R. and Ziegler, R. - Controlled studies for the prevention of cancer with a mistletoe extract for myomas, endometrioses and cervix dysplasia. pp. 537-550.
- Matthes, H. *et al.* - Supportive care in pancreatic carcinoma patients treated with a fermented mistletoe (*Viscum album* L.) extract. pp. 551-562.
- Friedel, W.E. *et al.* - Fermented European mistletoe (*Viscum album* L.) extract in supportive care in patients with primary non-metastatic colorectal carcinoma. pp. 563-576.
- Beuth, J. *et al.* - Safety and efficacy of complementary treatment of breast cancer patients with standardized mistletoe extract in the aftercare period - a retrospective, controlled epidemiological cohort study. pp. 577-586.
- Kröz, M. *et al.* - Reliability, validity and mistletoe sensitivity of the German version of the cancer fatigue scale (CFS-D). pp. 589-600.
- Kröz, M. *et al.* - Validation of a new scale in internal coherence (ICS) with mistletoe therapy-sensitive questions for cancer patients. pp. 601-612.
- Schad, F. *et al.* - Epidemiological data from the Network Oncology, a research association for anthroposophically oriented medicine. pp. 613-624.

#### FORTHCOMING MEETINGS

**2<sup>nd</sup> Workshop on Invasive Alien Plants In Mediterranean Type Regions of the World**, to be held in Samsun, Turkey, 2-6 August 2010. The organizers EPPO (European and Mediterranean Plant Protection Organization) in partnership with the Council of Europe and the Iğdir University will welcome contributions on parasitic plants as invasive aliens. For further information see: [http://archives.eppo.org/MEETINGS/2010\\_conferences/mediterranean\\_ias.htm](http://archives.eppo.org/MEETINGS/2010_conferences/mediterranean_ias.htm)

**11<sup>th</sup> World Congress on Parasitic Plants**, to be held in Martina Franca, Puglia, Italy, 7-12 June 2011. For further detail, see the official web-site: <http://ipps2011.ba.cnr.it>

#### GENERAL WEB SITES

For individual web-site papers and reports see LITERATURE

For information on the International Parasitic Plant Society, current issue of *Haustorium*, etc. see: <http://www.parasiticplants.org/>

For past and current issues of Haustorium see also:

<http://www.odu.edu/~lmusselm/haustorium/index.shtml>

For information on the 11<sup>th</sup> World Congress on Parasitic Plants in Martina Franca, Italy, June 2011, see:

<http://ipps2011.ba.cnr.it> (available very soon)

For the announcement of Gebisa Ejeta's World Food Prize, including video of Hillary Clinton's address see: <http://www.worldfoodprize.org/about/about.htm>

For abstracts from the 9<sup>th</sup> World Congress on Parasitic Plants see: <http://www.cpe.vt.edu/wcopp/index.html>

For the ODU parasitic plant site see:

<http://www.odu.edu/~lmusselm/plant/parasitic/index.php>

For Dan Nickrent's 'The Parasitic Plant Connection' see: <http://www.parasiticplants.siu.edu/>

For the Parasitic Plant Genome Project (PPGP) see: <http://ppgp.huck.psu.edu/>

For The Mistletoe Center (including a comprehensive Annotated Bibliography on mistletoes, up to 2005) see: <http://www.rmrs.nau.edu/mistletoe/>

For information on the EU COST 849 Project (now completed) and reports of its meetings see: <http://cost849.ba.cnr.it/>

For information on the EWRS Working Group 'Parasitic weeds' see: [http://www.ewrs.org/parasitic\\_weeds.asp](http://www.ewrs.org/parasitic_weeds.asp)

For a description and other information about the *Desmodium* technique for *Striga* suppression, see: <http://www.push-pull.net/>

For the work of Forest Products Commission (FPC) on sandalwood, see: <http://www.fpc.wa.gov.au> (Search *Santalum*)

For past and future issues of the Sandalwood Research Newsletter, see: <http://www.jcu.edu.au/mbil/srn/index.html>

For information on the Kilimo Trust *Striga* project see: [www.thekilimotrust.org](http://www.thekilimotrust.org)

For information on the work of the African Agricultural Technology Foundation (AATF) on *Striga* control in Kenya, including periodical 'Strides in *Striga* management' newsletters, see: <http://www.aatf-africa.org/>

## LITERATURE

\* indicates web-site reference only

- Abercrombie, L.G. (and 102 others!) 2009. Permanent genetic resources added to molecular ecology resources database 1 January 2009-30 April 2009. *Molecular Ecology Resources* 9(5): 1375-1379. (Documenting microsatellite loci for a wide range of species including *Agalinis acuta*, these cross-tested on *A. decemloba*; *A. tenella*; *A. obtusifolia*; *A. setacea*; *A. skinneriana*.)
- Aganga, A.A. and Mesho, E.O. 2008. Mineral contents of browse plants in Kweneng District in Botswana. *Agricultural Journal* 3(2): 93-98. (Finding low levels of mineral in shrubs including *Ximenia africana* (Olacaceae).)
- Ahmed, S.H. and Rocha, J.B. 2009. Antioxidant properties of water extracts for the Iraqi plants *Phoenix dactylifera*, *Loranthus europeas*, *Zingiber officinalis* and *Citrus aurantifolia*. *Modern Applied Science* 3(3): 161-166. (Noting some activity from *L. europaeus*.)
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- Nadler-Hassar, T., Shaner, D.L., Nissen, S., Westra, P and Rubin, B. 2009. Are herbicide-resistant crops the answer to controlling *Cuscuta*? *Pest Management Science* 65(7): 811-816. (Imazamox applied to imidazolinone-resistant oil-seed rape gave excellent selective control of *C. campestris*. Corresponding results with glyphosate on glyphosate-resistant crop were good for a while but the parasite recovered. Corresponding results with glufosinate were poor.)
- Nelson, E.C. 2008. Mistletoe (*Viscum album* L.) in Ireland: a review of records and status. *Irish Naturalists' Journal* 29(2): 87-94. (*V. album* was introduced to the Dublin Botanic Garden in the 19<sup>th</sup> century and is continuing to spread.)
- Nilsson, L.A. and Alves-Dos-Santos, I. 2009. The oligolectic solitary bee *Melitta tricincta* Kirby, 1802 (Sw. rödtoppebi) in Sweden (Hymenoptera, Apoidea, Melittidae). *Entomologisk Tidskrift* 130(2): 85-98. (Report of a survey showing that *M. tricincta* is surviving well in S. Sweden on its sole host *Odontites vulgaris* (= *O. serotinus*), thanks partly to military activity and year-round grazing.)
- Okpuzor, J., Ogbunugafor, H. and Kareem, G.K. 2009. Antioxidative properties of ethyl acetate fraction of *Globimetula braunii* in normal albino rats. *Journal of Biological Sciences* 9(5): 470-475. (Concluding that endogenous naringin from *G. braunii* (Loranthaceae), used medicinally in Nigeria may be acting *in vivo* both as an antioxidant and a pro-oxidant.)
- Olanya, C.A. and Eilu, G. 2009. Host-parasite relations of an angiospermous root parasite (*Thonningia sanguinea* Vahl) in logged and unlogged sites of Budongo forest reserve, western Uganda. *African Journal of Ecology* 47 328-334. (*T. sanguinea* is favoured by a complete canopy and was less common in logged sites (420/ha) than in non-logged sites, (870/ha). The parasite is not host specific but *Alchornea laxiflora*, *Celtis mildbraedii* and *Lasiodiscus mildbraedii* appeared to be favoured hosts.)
- Ong ChengYi, Ling SuiKiong, Ali, R.M., Chee ChinFei, Samah, Z.A., Ho SiongHock, Teo SooHwang and Lee HongBoon. 2009. Systematic analysis of *in vitro* photo-cytotoxic activity in extracts from terrestrial plants in Peninsula Malaysia for photodynamic therapy. *Journal of Photochemistry and Photobiology. B, Biology* 96(3): 216-222. (Extracts from *Scorodocarpus bornensis* (Olacaceae) among those showing photosensitising activity apparently based on components with cyclic tetrapyrrole structure.)
- Orel-Aksoy, E., Uygur, F.N., Uygur, S. and Kolören, O. 2003. Distribution of *Orobanche* spp. in the East Mediterranean region of Turkey. *Proceedings of the 7th EWRS (European Weed Research Society) Mediterranean Symposium, Cukurova University, Adana, Turkey, 6-9 May 2003: 131-132.* (No abstract readily available but this is one of several papers in this volume (not all listed here) with potentially useful information on *Orobanche* in Turkey.)
- Osadebe, P.O. and Omeje, E.O. 2009. Main immunomodulatory constituents of Eastern Nigeria Mistletoe, *Loranthus micranthus* Linn. *Asian Pacific Journal of Tropical Medicine* 2(4): 11-18. (Concluding that the main immunostimulatory components in *L. micranthus* (= *Ileostylus micranthus*) are flavonoids, terpenoids and or steroids..)
- Owuor, B., Musyimi, D., Ocaido, M. and Asimwe, J. 2009. Vegetative propagation of the large sour plum (*Ximenia caffra* Sond) by rooting of plagiotropic stem cuttings. *Journal of Agricultural and Biological Science* 4(1): 19-25. (Rooting of single-node stem cuttings of *X. caffra* (Olacaceae) was successful in

- sand, sawdust or a sand/sawdust mix, without need for NAA. Work relevant to farmers in W. Kenya.)
- Özdemir, N., Saygili, H., Sahin, F., Karsavuran, Y., Bayrak, O.F. and Oral, B., 2009. Host range and genetic characterization of a phytoplasma causing tomato stolbur disease in Turkey. In: Saygili, H., Sahin, F. and Aysan, Y. (eds) *Acta Horticulturae* 808: 255-261. (*Cuscuta campestris* and *Orobancha ramosa* identified as alternative hosts of the stolbur phytoplasma.)
- Paisooksantivatana, Y., Tuntawiroon, O., Meaktrong, W. and Rattamanee, C. 2009. Status and utilization of native plants in Phufa Pattana Centre area. Proceedings of the 47th Kasetsart University Annual Conference, Kasetsart, 17-20 March, 2009. Subject: Plants: 554-561. (*Balanophora* sp. among the rare medicinal plants listed.)
- Pan Biao, Zhai ShengCheng and Qi HaiNing. 2009. (Wood identification of the wooden parts from the gilded-pagoda excavated at Dabaoen Temple site in Nanjing.) (in Chinese) *Journal of Nanjing Forestry University (Natural Sciences Edition)* 33(3): 83-86. (Confirming that timber used in construction 1000 years ago was from *Santalum album* from India.)
- Pattanayak, S.P. and Mazumder, P.M. 2009. Effect of *Dendrophthoe falcata* (L.f.) Ettingsh on female reproductive system in Wistar rats: a focus on antifertility efficacy. *Contraception* 80(3): 314-320. (Antifertility effects recorded support the traditional use of *D. falcata* in India.)
- Pérez-de-Luque, A., Fondevilla, S., Pérez-Vich, B., Aly, R., Thoiron, S., Simier, P., Castillejo, M.A., Fernández-Martínez, J.M., Jorrín, J., Rubiales, D. and Delavault, P. 2009. Understanding *Orobancha* and *Phelipanche*-host plant interactions and developing resistance. *Weed Research* 49(Supplement1): 8-22. (An in-depth review, emphasising the need for an inter-disciplinary approach, including biotechnological approaches.)
- Priyanka Agnihotri and Tariq Husain. 2009. Analysis of species diversity in *Pedicularis* associations of Eastern Himalaya. *Indian Journal of Forestry* 32(1): 165-170. (*Ranunculus* and *Taraxacum* were most commonly associated with *Pedicularis* spp. in Sikkim.)
- Qasem, J.R. 2009. An updated inventory of mistletoe (*Plicosepalus acaciae* and *Viscum cruciatum*) distribution in Jordan, hosts, and severity of infestation. *Weed Technology* 23(3): 465-469. (Detailed surveys recorded *P. acaciae* on 26 hosts in 12 families, causing serious damage to *Zizyphus* spp., *Casuarina equisetifolia*, *Melia azedarach* and several others. *V. cruciatum* occurred on 14 species in 8 families, being particularly damaging on almond, olive, pomegranate and others.)
- Quan JiShu, Piao Long, Xu HuiXian, Li Tian and Yin XueZhe. 2009. Protective effect of iridoid glucosides from *Boschniakia rossica* on acute liver injury induced by carbon tetrachloride in rats. *Bioscience, Biotechnology and Biochemistry* 73(4): 849-854.
- Ramírez, M.M. and Ornelas, J.F. 2009. Germination of *Psittacanthus schiedeanus* (mistletoe) seeds after passage through the gut of cedar waxwings and grey silky-flycatchers. *Journal of the Torrey Botanical Society* 136(3): 322-331. (*P. schiedeanus* seeds collected from plants on the host tree, *Liquidambar styraciflua*, germinated better than those from *Acacia pennatula*, and *Rapanea myricoides*. More seeds defecated by the waxwing germinated, than those defecated by the flycatcher, apparently due to longer retention time in the latter.)
- Rasran, L., Vogt, K. and Jensen, K. 2007. Effects of topsoil removal, seed transfer with plant material and moderate grazing on restoration of riparian fen grasslands. *Applied Vegetation Science* 10(3): 451-460. (Experiments with grazing, top-soil removal and hay transfer in N. Germany included observations on establishment of *Rhinanthus angustifolius*.)
- Ratnadass, A., Cissé, B., Cissé, S., Cissé, T., Hamada, M.A. and Letourmy, P. 2007. An on-farm study of *Striga* as constraint to improved sorghum cultivar production in Mali. *Journal of SAT Agricultural Research* 5(1): 1-5. (Infestation by *S. hermonthica* was greater in early sown crop, but delaying sowing reduced yields. Early sowing plus mulch is suggested.)
- Ren, Y.Q. and Guan, K.Y. 2008. Effects of moist-chilling and GA<sub>3</sub> applications on seed germination of three *Pedicularis* species from Yunnan, China. *Seed Science and Technology* 36: 225-229. (Germination of *Pedicularis rex*, *P. rhinanthoides*, and *P. longiflora* var. *tubiformis* was favoured by GA<sub>3</sub> and by 15-30 days stratification.)
- Roat, B.L., Jeewa Ram and Choudhary, S.L. 2009. Fruit rot of chilli incited by *Colletotrichum capsici* and management through plant products. *Annals of Plant Protection Sciences* 17(2): 398-401. (Treating seed with a product from *Santalum album* did not protect against *Colletotrichum*.)
- Rodenburg, J. and Johnson, D.E. 2009. Weed management in rice-based cropping systems in Africa. *Advances in Agronomy* 103: 149-218. (Noting *Striga* spp. among important weeds of lowland rice.)
- Rodríguez, R., Grau, J., Baeza, C. and Davies, A. 2008. (Commented checklist of vascular plants of Nevados de Chillan, Chile.) (in Spanish) *Gayana Botanica* 65(2): 153-197. (*Pilostyles berteroi* (Rafflesiaceae) listed among 'characteristic' species of the area.)
- Roman, G.P., Neagu, E. and Radu, G.L. 2009. Antiradical activities of *Salvia officinalis* and *Viscum album* L. extracts concentrated by

- ultrafiltration process. *Acta Scientiarum Polonorum - Technologia Alimentaria* 8(3): 47-58. (Exploring optimum ultrafiltration methods and confirming good radical scavenging activity in concentrated extracts from both sage and *V. album*.)
- Roy, M., Yagame, T., Yamato, M., Iwase, K., Heinz, C., Faccio, A., Bonfante, P., Selosse, M.A., Fay, M.F. and Chase, M.W. 2009. Ectomycorrhizal *Inocybe* species associate with the mycoheterotrophic orchid *Epipogium aphyllum* but not its asexual propagules. *Annals of Botany* 104(3): 595-610. (*Inocybe* spp. is the main symbiont involved and surrounding trees are assumed to be the ultimate carbon source.)
- Rubiales, D., Fernández-Aparicio, M. and Haddad, A. 2009. Parasitic weeds. In: Erskine, W., Muehlbauer, F.J., Sarker, A. and Sharma, B. (eds), *The lentil: botany, production and uses*. CABI, Wallingford, UK: 343-349. (Briefly reviewing the *Cuscuta* and *Orobanche* problems affecting lentil.)
- Rubiales, D., Fernández-Aparicio, M., Wegmann, K. and Joel, D.M. 2009. Revisiting strategies for reducing the seedbank of *Orobanche* and *Phelipanche* spp. *Weed Research* 49(Supplement1): 23-33. (Discussing the need for techniques to reduce the long-term seed bank and reviewing the various options using soil solarization, inter-cropping, rotation, and other cultural methods.)
- Rubiales, D., Verkleij, J., Vurro, M., Murdoch, A.J. and Joel, D.M. 2009. Parasitic plant management in sustainable agriculture. *Weed Research* 49(Supplement1): 1-5. (An introduction to this special issue of *Weed Research*, reviewing the history and achievements of the EC-supported cooperative programme 'COST action 849 - Parasitic plant management in sustainable agriculture'. See news item above.)
- Rüther, C. and Klotz, J. 2009. (Distribution, phytosociology and ecology of *Lathraea squamaria* in southern Germany, with a survey of the situation in Central Europe) (in German) *Tuexenia* 2009(29): 25-62. (Detailed ecological study of *L. squamaria* over many sites in southern Germany describing the common companion species and noting that it is associated with moderately acidic to weakly basic soils with a high base supply in combination with a moderate to high moisture content. No comment on host(s) in the abstract.)
- Saadabi, A.M.A. and Ayoub, S.M.H. 2009. Comparative bioactivity of *Hydnora abyssinica* A. Braun against different groups of fungi and bacteria. *Journal of Medicinal Plants Research* 3(4): 262-265. (The activity of extracts of roots of *H. abyssinica* in water, methanol or chloroform on human fungal and bacterial pathogens is claimed to support traditional use of this plant for treating bacterial infections in Sudan.)
- Sadia Bibi, Husain, S.Z. and Malik, R.N. 2008. Pollen analysis and heavy metals detection in honey samples from seven selected countries. *Pakistan Journal of Botany* 40(2): 507-516. (Loranthaceae identified as the source of some honeys.)
- Salimi, H., Khalghani, J., Gharehdaghi, A.A. and Rahimian, H. 2007. An investigation on weed seed viability in different depths of compost piles. In: Flistad, E. (ed.) *European Weed Research Society, 14th EWRS Symposium, Hamar, Norway, 17-21 June 2007*: 183. (Involving *Cuscuta monogyna* but no abstract available.)
- Sandler, H.A. 2009. Integrating conventional and alternative practices into cranberry weed management. In: Hummer, K.E., Strik, B.C. and Finn, C.E. (eds) *Acta Horticulturae* 810(1) 429-436. (Suggesting some useful control of *Cuscuta groenovii* from herbicide application but abstract not clear.)
- Sareedenchai, V. and Zidorn, C. 2008. Sequestration of polyacetylenes by the parasite *Orobanche hederæ* (Orobanchaceae) from its host *Hedera helix* (Araliaceae). *Systematics and Ecology* 36(10): 772-776. (Concentrations of polyacetylene were much lower in *O. hederæ* than in *H. helix*. More polar polyacetylenes were relatively higher.)
- Scheer, R., Alban, S., Becker, H., Holzgrabe, U., Kemper, F.H., Kreis, W. Matthes, H. and Schilcher, H. (eds) *Mistletoe in Cancer Therapy 2: Current state of research and clinical application. Die Mistel in der Tumorthherapie 2: Aktueller Stand der Forschung und klinische Anwendung, 2009*, KVC Verlag, Essen, Germany. 642 pp. (This volume is based on the meeting held in 2007 and reported in *Haustorium* 53. The 51 chapters on mistletoes and their potential applications in cancer therapy are listed above under Meetings.)
- Scott, J.M. and Mathiasen, R.L. 2009. Bristlecone pine dwarf mistletoe: *Arceuthobium microcarpum* subsp. *aristatae* (Viscaceae), a new subspecies of western spruce dwarf mistletoe from northern Arizona. *Journal of the Botanical Institute of Texas* 3(1): 13-21. (Describing a new subspecies occurring on *Pinus aristata* and occasionally on *Picea engelmannii*, but not on *Picea pungens*, the main host of the nominate form.)
- Setzer, W.N. 2009. Essential oils and anxiolytic aromatherapy. *Natural Product Communications* 4(9): 1305-1316. (Oil from *Santalum album* among those discussed for their use in aromatherapy.)
- Seymour, C.L. 2009. Protégé *Ziziphus mucronata* (Rhamnaceae) show no negative effects of competition with the nurse tree *Acacia* (Leguminaceae), even as adults. *Journal of Vegetation Science* 20(5): 926-934. (*Z. mucronata* growing under *A. erioloba* was less infested by *Viscum rotundifolium* than when growing in the open.)

- Seymour, R.S., Maass, E. and Bolin, J.F. 2009. Floral thermogenesis of three species of *Hydnora* (Hydnoraceae) in Africa. *Annals of Botany* 104(5): 823-832. (There was no elevation of temperature in the flowers of *H. africana*, but up to 2.8<sup>o</sup>C elevation in *H. abyssinica* and up to 3.8<sup>o</sup>C in *H. esculenta*.)
- Sharawy, S.M. 2008. Polymorphism in seed protein electrophoretic pattern and species relationships in the genus *Orobanche* L. *Australian Journal of Basic and Applied Sciences* 2(4): 1298-1306. (Results support previous taxonomic grouping in the genus *Orobanche* (*sensu lato*) and suggest the technique could be used for identification purposes.)
- She GaiMei, Zhang YingJun and Yang ChongRen. 2009. Phenolic constituents from *Balanophora laxiflora* with DPPH radical -scavenging activity. *Chemistry & Biodiversity* 6(6): 875-880. (Chasing the essential ingredient responsible for curing hangovers in Yunnan, China.)
- Shin HyeYoung, Chang InAe, Zhang WenJi, Kim YounChul, Yuun YongGab and Park Hyun. 2009. Immune stimulatory effects of *Loranthi ramulus* on macrophages through the increase of NO and TNF- $\alpha$ . *Immunopharmacology and Immunotoxicology* 31(3): 370-376. (Demonstrating that extracts of '*Loranthi ramulus*' (= *Viscum coloratum*), used as a medicinal herb in Korea, can activate macrophages, suggesting they may have potential to regulate immune responses.)
- Sohn SungHwa, Lee HyoJung, Nam JiYoung, Kim SungHoon, Jung HeeJae, Kim YangSeok, Shin MinKyu, Hong MooChang and Bae HyunSu. 2009. Screening of herbal medicines for the recovery of cisplatin-induced nephrotoxicity. *Environmental Toxicology and Pharmacology* 28(2): 206-212. (Observing some beneficial effects from extracts of '*Loranthus parasiticus*' (= *Scurrula parasitica*).)
- Spooner, B.M. 2009. *Loranthus europaeus*: a gall causer new to Britain. *Cecidology* 24(2): 53-54. (*L. europaeus* recorded in Kew Gardens. See text item above.)
- Srikanta Dani, K.G, Ravikumar P., Pravin Kumar, R. and Kush A. 2009. Genetic diversity estimates in three geographically isolated populations of *Santalum album* in India. *Sandalwood Research Newsletter* 24, 1-6. (Molecular studies, prompted by serious decline in natural populations of *S. album* in the Deccan plateau, show high genetic variation among and within the populations.)
- Štajner, D., Popovic´, B.M., Boža, P. and Kapor, A. 2009. Antioxidant capacity of *Melampyrum barbatum* - weed and medicinal plant. *Phytotherapy Research* 23(7): 1006-1010. (Red-flowered forms of *M. barbatum* showed higher antioxidant activity than yellow-flowered forms.)
- Stanton, S. 2009. Western dwarf mistletoe and prescribed fire behavior - a case study from Crater Lake National Park. *Northwest Science* 83(3): 189-199. (Ponderosa pine burned faster when infested by *Arceuthobium campylopodium* but there was no wider influence on response to fire.)
- Stanton, S., Honnay, O., Jacquemyn, H. and Roldán-Ruiz, I. 2009. A comparison of the population genetic structure of parasitic *Viscum album* from two landscapes differing in degree of fragmentation. *Plant Systematics and Evolution* 281(1/4): 161-169. (Studies in Austria indicate that habitat fragmentation negatively affects population genetic structure and levels of inbreeding in *V. album*, with the degree of isolation among populations exerting a stronger influence than forest patch size.)
- Strzałka, K., Szyman´ska, R., Świeżewska, E., Skorupin´ska-Tudek, K. and Suwalsky, M. 2009. Tocochromanols, plastoquinone and polyphenols in selected plant species from Chilean Patagonia. *Acta Botanica Cracoviensia. Series Botanica* 51(1): 39-44. (Including observations on *Misodendron punctulatum* and *M. linearifolium*.)
- Strong, W.L. and Redburn, M.J. 2009. Latitude-related variation in understory vegetation of boreal *Populus tremuloides* stands in Alberta, Canada. *Community Ecology* 10(1): 35-44. (*Pedicularis labradorica* among a number of species which decreased in abundance from south to north.)
- Tank, D.C. and Olmstead, R.G. 2009. The evolutionary origin of a second radiation of annual *Castilleja* (Orobanchaceae) species in South America: the role of long distance dispersal and allopolyploidy. *American Journal of Botany* 96(10) 1907-1921. (*Castilleja* is of interest not only to parasitic plant enthusiast, but to evolutionary biologists because of the size and diversity of the genus. The authors show that taxa in Chile and Peru arose through long distance dispersal from North America as well as polyploidy and hybridization.)
- Tao RongYa, Ye Fei, He Yibo, Tian JinYing, Liu GengTao, Ji TengFei and Su YaLun. 2009. Improvement of high-fat-diet-induced metabolic syndrome by a compound from *Balanophora polyandra* Griff in mice. *European Journal of Pharmacology* 616(1/3): 328-333. (Results suggest that an extract of *B. polyandra* improves the metabolic syndrome perhaps by the enhancement of insulin sensitivity and fatty acid oxidation.)
- Theu, M.P.K.J. 2008. Biological control of witch weed (*Striga*) in maize (*Zea mays*) in Malawi. In: Theu, M.P.K.J. (ed.) *Plant protection progress report for the 2007/2008 season*, presented at the Department of Agricultural Research Services Planning and Review Meeting, Andrews Hotel, Mangochi, 14-20 September, 2008: 90-103. (The only fungus highly pathogenic on *S. asiatica* was *Fusarium oxysporum*. Bacteria *Rawlstonia* and *Agrobacterium* were also pathogenic but caused only minor infection.)

- Thomas, R. 2009. Regent Honeyeater Habitat Restoration Project Lurg hills, Victoria. *Ecological Management & Restoration* 10(2): 84-97. ('Mistletoe removal' listed among measures to restore a native woodland habitat favourable for regent honey eaters and other birds.)
- Thorogood, C.J., Rumsey, F.J., Harris, S.A. and Hiscock, S.J. 2009. Gene flow between alien and native races of the holoparasitic angiosperm *Orobanche minor* (Orobanchaceae). *Plant Systematics and Evolution* 282(1/2): 31-42. (Noting the wide geographic and host range of *O. minor* and the potential for range expansion in alien races of *O. minor*, which may threaten nationally scarce native taxa with genetic assimilation.)
- Thorogood, C.J., Rumsey, F.J. and Hiscock, S.J. 2009. Seed viability determination in parasitic broomrapes (*Orobanche* and *Phelipanche*) using fluorescein diacetate staining. *Weed Research* 49(5): 461-468. (Fluorescein diacetate (DCA) shows potential as an alternative to the standard tetrazolium (TTC) test for seed viability having the advantage of more positive discrimination, but involving dissection of seeds before testing.)
- Tourdjman, M., Srihawong, R., Soy, T.K., Touch, S., Hul, S., Janssens, B., Galliot-Guilley, M. and Vong, S. 2009. Plant poisoning outbreak in the western area of Cambodia, 2005. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 103(9): 949-951. (67 patients were made ill and 7 died from eating (fruits of?) *Urobotrya siamensis* (Opiliaceae) having mistaken it for the related edible *Melientha suavis*.)
- Treštic', T., Dautbašić', M. and Mujezinović', O. 2006. (The influence of oak mistletoe (*Loranthus europaeus* Jacq.) to stability of the sessile oak stands.) (in Serbo-Croatian) *Radovi Šumarskog Fakulteta Univerziteta u Sarajevu*, 2006, 36(1): 87-93. (Noting direct damage from *L. europaeus* on *Quercus sessilis*; also indirect effects by inducing greater susceptibility to insects and fungi.)
- Tsuchiya, Y., McCourt, P., Lohmann, J.U. and Nemhauser, J. 2009. Strigolactones: a new hormone with a past. *Current Opinion in Plant Biology* 12(5): 556-561. (A nice review of the emerging understanding of strigolactones and their role in regulation of branching and ecology, including signalling of parasite germination.)
- Tsyplenkov, A.E. 2008. (Rickettsias - possible causal agents of yellows in plants.) (in Russian) *Zashchita i Karantin Rastenij*, 2008(11): 12-13. (Referring to rickettsias as causal agents of yellows in *Cuscuta* but some confusion suspected.)
- Uludag, A., Turkseven, S., Nemli, Y. and Demirci, M. 2007. Broomrape (*Orobanche* spp.) occurrence in agricultural areas in Turkey. In: Flistad, E. (ed.) *European Weed Research Society, Doorwerth, Netherlands, European Weed Research Society, 14th EWRS Symposium, Hamar, Norway, 17-21 June 2007: 224.* (Referring also to *Cuscuta campestris* but no abstract available.)
- Usćuplić', M., Dautbašić', M., Treštic', T. and Dundjer, A. 2007. Forests of Bosnia and Herzegovina at the threshold of the new millennia. In: Abrudan, I.V., Spârchez, G., Oprea, I., Simon, D., Ignea, G. and Chitea, G. (eds). *Lucrările Sesiunii Stiintifice Bienale cu Participare Internațională Pădurea și Dezvoltarea Durabilă Brașov, Romania, 27-28 Octombrie, 2006: 603-608.* (Infestation of *Abies alba* by mistletoe (presumable *Viscum album*) sometimes requires clear felling.)
- Varun Sharma and Uniyal, S.K. 2009. *Aeginetia indica* L. - a new record to the flora of Himachal Pradesh. *Indian Journal of Forestry* 32(1): 127-130. (On *Dendrocalamus strictus*.)
- Vasconcellos, C.L.C., Vitória, K C D., Andrade, P.A., Cambuí, É.V.F., Lira, A.F., Cavalcante, S.C.H., Estevam, C.S., Antonioli, A.R. and Thomazzi, S.M. 2009. Antinociceptive, anti-inflammatory, and antioxidant properties of *Phoradendron piperoides* leaves. *Pharmaceutical Biology* 47(7): 645-652. (Reporting some moderate effects from extracts of *P. piperoides*, which is used in traditional medicine in NE Brazil.)
- Vaz Patto, M.C., Fernández-Aparichio, Satovic, Z. and Rubiales, D. 2009. Extent and pattern of genetic differentiation within and between European populations of *Phelipanche ramosa* revealed by amplified fragment length polymorphism analysis. *Weed Research* 49(Supplement 1): 48-55. (Collections of *P. ramosa* from across Europe showed much genetic diversity between populations, while within-population diversity was less but variable. The significance of the results is discussed in relation to breeding parasite resistance in tobacco.)
- Vazan, S., Siami, K., Jamshidiand, S. and Alimohammadi, R. 2007. *Orobanche aegyptiaca* management by catch and trap crops in tomato. In: Flistad, E. (ed.) *European Weed Research Society, 14th EWRS Symposium, Hamar, Norway, 17-21 June 2007: 114.* (No abstract available.)
- Veljkovic, B., Vrbnicanin, S., Bozic, D. and Radanovic, Z. 2007. *Cuscuta campestris* (Ynck)[sic] and *Cuscuta epithimum* (Murr.)[sic]: serious problems in alfalfa in Serbia. In: Flistad, E. (ed.) *European Weed Research Society, 14th EWRS Symposium, Hamar, Norway, 17-21 June 2007: 74.* (No abstract available.)
- Villanueva-Gutiérrez, R., Moguel-Ordóñez, Y.B., Echazarreta-González, C.M. and Arana-López, G. 2009. Monofloral honeys in the Yucatán Peninsula, Mexico. *Grana* 48(3): 214-223. (Thirteen

- 'monofloral' honeys (at least 45% purity?) included one from *Phoradendron quadrangulare*.)
- Viswanath, S., Dhanya, B. and Rathore, T.S. 2009. Domestication of sandal (*Santalum album* L.) in India: constraints and prospects. APANews 34: 9-12. (Reviewing the economics of sandal production.)
- Wambugu, P.W., Mathenge, P.W. Auma, E. O. and van Rheenen, H.A. 2009. Constraints to on-farm maize (*Zea mays*) seed production in Western Kenya: seed vigor and viability. Journal of New Seeds, 2009, 10, 3, pp 149-159. (Concluding that harvesting of seeds at harvest (not physiological) maturity and application of nitrogen could lead to an improved on-farm production system of maize affected by *Striga hermonthica*.)
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### HAUSTORIUM 56

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