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PRESIDENT'S MESSAGE

Dear IPPS Members,

May the year 2013 be happy and fruitful.

As mentioned in the last issue of Haustorium, our next World Congress on Parasitic Plants (WCPP) will be held from July 15-19 in Sheffield, UK. We are sorry for the delay in opening of the special conference website which will soon be available. (You will informed directly as soon as it is available – Ed.)

We will have seven sessions (session titles & session organizers), 1. Genomics (John Yoder, Jim Westwood), 2. Biology and Biochemistry (Philippe Delavault, Philippe Simier), 3. Host-Parasite Communication (Koichi Yoneyama, Maurizio Vurro), 4. Ecology and Population Biology (Yaakov Goldwasser, JonneRodenburg), 5. Control and Management (Diego Rubiales, Joseph Hershenhorn), 6. Crop Resistance and Tolerance (Julie Scholes, Michael Timko), 7. Environmental factors, modeling and mapping (Ahmed Uludag,Hanan Eizenburg), and an IPPS-COST (STRigolactones Enhanced Agricultural Methodologies, STREAM) symposium (Hinanit Koltai, Cristina Prandy). Please prepare for the Congress to share your recent findings on parasitic plants with many colleagues and friends.

During a year and a half after the 11th WCPP in Italy, we have witnessed breakthroughs in parasitic plant sciences. Among them, for example, practical transgenic techniques of root parasitic plants have been developed, and the major pathways in strigolactone biosynthesis have been unveiled. These have convinced me that our current schedule to have WCPP every other year is appropriate to catch up with this rapid progress.

In addition to these rapid advances in basic sciences, we also need to pay great attention to applied sciences because farmers have been waiting eagerly for innovation in practical control measures for parasitic weeds.

In Japan, clover broomrape (*Orobanche minor)* was first reported in 1937 in Chiba Prefecture near Tokyo. Since then it has spread rapidly and now it occurs in Kyoto. Ten years ago, we went to Watarase River bank to collect the seeds but now we can find it easily in our city. In addition, dodders (*Cuscuta* spp.) are now causing noticeable crop damage in Japan. So we are afraid that in the near future these parasitic weeds may become noxious weeds in Japan.

Of course, parasitic plants are unique and important contributors to biodiversity. We need to evaluate not only negative effects but also positive effects of parasitic plants on natural and agricultural ecosystems.

Looking forward to meeting many IPPS members at the next WCPP in Sheffield in July.

Sincerely,

Koichi Yoneyama, IPPS President
yoneyama@cc.utsunomiya-u.ac.jp

SEASONAL GREETINGS TO ALL

With thanks to Dietmar Fennel for this montage, prepared for the exhibition entitled 'The Bird World of the Mistletoe, in the Stadtmuseum, Schwabach, Germany
http://www.schwabach.de/stadtmuseum/

ALECTRA VOGELII ON SUNFLOWER IN TANZANIA

Alectra vogelii Benth. is widely distributed as a parasite of legume crops in the dry savannahs of sub-Saharran Africa. The species is found on a number of legume hosts, most commonly in cowpea and locally as a significant problem in groundnut and soyabean. Earlier this year when travelling in Singida Rural District of central Tanzania we noticed plants of an *Alectra* species in many sunflower fields in Mtinko ward. Sunflower has become an important cash crop in central Tanzania expanding to meet the demands from oil extraction plants built in the area. While at first glance specimens looked typical for *A. vogelii* we noticed that all plants in the area collected from sunflower, cowpea and occasionally soya have densely hairy or so called "bearded" anther filaments. Current taxonomic treatments of *Alectra* (see Flora Zambesiaca: vol 8 part 2 (1990) Scrophulariaceae by D. Philcox) place *A. vogelii* with *A. picta* (Hiern) Hemsl. as two species with non-apicualte

anther thecae. *A. picta* was maintained as a separate species by virtue of bearded filaments and plants were described as being 'floriferous in the upper part of the stem, not generally throughout'. All our specimens from Singida are floriferous throughout but with densely bearded filaments so could be assigned to *A. picta*. Dr Iain Darbyshire kindly compared these Tanzania plants to other specimens in the Royal Botanic Gardens, Kew Herbarium and confirmed they are broadly similar to those previously identified as *A. picta*. Were it not for bearded filaments it would be extremely difficult to distinguish the Tanzanian material from *A. vogelii*. The first author has previously collected *A. picta* type plants in Eastern Malawi growing in the same row of groundnuts as typical *A. vogelii* with glabrous filaments. In view of morphological similarities and similar responses to legume hosts in pot trials, Parker and Riches (1993 – Parasitic Weeds of the World: Biology and Control, Wallingford, UK, CAB International) raised doubt that *A. picta* and *A. vogelii* are distinct species. Subsequently Jeffery Morawetz in a revision of *Alectra* synonymised the two species as *A. vogelii* (Morawetz, J. 2007. Systematics of *Alectra* (Orobanchaceae) and phylogenetic relationships among the tropical clade of Orobanchaceae. PhD Thesis Ohio State University). Based on the above it seems likely that the *Alectra* in Singida is indeed *A. vogelii*.

Alectra vogelii on sunflower Photo: C.R. Riches

As far as we are aware the extent of infestation of sunflower in Tanzania and beyond by *A. vogelii* is largely unknown. The second author has observed infested fields in Ismani ward of IringaDistrict where sunflower has also become a cash crop. Johann Visser listed an occurrence of *A. vogelii* on the crop at Ventersdorp in South Africa many years ago (Visser, J.H. 1978 The Biology of *Alectra vogelii* Benth., An Angiospermous Root Parasite. Beiträge zur Chemischen Kommunikation in Bio- und Ökosystemen, Witzenhausen pp. 279-294). In Singida farmers plant sunflower in rotation with maize or sorghum and rarely apply fertilizer. They report steadily declining yields. The effect of the parasite on sunflower is, however, uncertain although in Singidawe observed that some infested plants were stunted with small heads compared to non-infested ones.

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Charlie Riches (Natural Resources Institute, University of Greenwich UK, charlie@riches27.freeserve.co.uk)
Ambonesigwe Mbwaga (Uyole Agricultural Research Institute, Mbeya, Tanzania, ambwaga@gmail.com)

PRESS RELEASES

Decades old weed seeds trigger new plant parasite outbreak

In the early 1980s, a devastating parasitic weed was found in a tomato field in California. The infestation of branched broomrape (*Orobanche ramosa*) was treated aggressively and the field was quarantined to prevent further spread. When tomatoes were planted in the same spot more than two decades later, though, the branched broomrape quickly returned. According to Lee Van Wychen, Ph.D., science policy director of the Weed Science Society of America, the recurrence is not a surprise. 'When weed seeds drop to the soil, some can remain viable for many decades,' Van Wychen says. 'Effective control requires a long-term commitment.'

There are a number of alternatives available to manage noxious weed seeds that become part of the soil seed bank. One is to quarantine the area and leave the seeds undisturbed until they are no longer viable. But as the broomrape example shows, the length of time the area will need to be quarantined is an unknown. In some instances, the soil is fumigated in an attempt to destroy noxious weed seeds. In other instances, the soil is lightly tilled and a nitrogen fertilizer applied to promote germination and encourage the seeds to sprout. Once they've emerged, the weeds are pulled, tilled or treated with an herbicide to keep them from reseeding. 'None of these options are a magic bullet that will work overnight or kill 100 percent of the weed seeds each and every time,' Van Wychen said. 'Persistence is the key.'

Branched broomrape is a prolific seed producer, which significantly compounds efforts to control it. A single plant

can produce 50,000 or more tiny seeds that are easily spread by people, animals, farm machinery, wind and water. When the weed seeds germinate, they attach to the roots of host plants and drain them of water and nutrients – devastating tomatoes, potatoes, peppers, beans and other important crops that branched broomrape prefers.

As a result, California officials quickly sprang into action when the most recent outbreak of branched broomrape was discovered. The San Benito Agricultural Commissioner took the lead in a multifaceted response – quarantining the site again and pulling in state and federal experts and university personnel to lend their expertise. The California Department of Food and Agriculture has been involved, as well as the USDA's Animal and Plant Health Inspection Service (APHIS). It was a pretty serious infestation,' said Richard Smith, farm advisor with the University of California Cooperative Extension. 'We collected big garbage bags of branched broomrape from the 70-acre plot where it was discovered. And when we mapped the site, it overlapped almost precisely with the 1980s outbreak.' Smith says officials are still evaluating soil fumigation and other potential alternatives for dealing with the long-lived seeds still hidden in the soil.

Branched broomrape has earned a well-deserved spot on the federal noxious weed list. It has been found in several U.S. states to date, including California, Illinois, Kentucky, New Jersey, North Carolina and Texas.

Weed Science Society of America | October 3, 2012

How to go about getting rid of mistletoe in Modesto

On Aug. 16, I authored a community column encouraging Modesto residents to take responsibility for pruning mistletoe from city-owned trees that shade their properties and increase their property values. I have since heard from several Modestans who say the city won't allow private citizens to interfere with the maintenance of city-owned trees.
I knew the city had an approved vendor list of companies that homeowners could hire to prune a city-owned tree affecting their property, but I didn't know the particulars, so I did some more research.

The city does in fact allow homeowners to provide maintenance to city-owned trees at the property owner's expense, if you don't want to wait the scheduled seven years for the Modesto Community Forestry Department's regular maintenance. Homeowners are allowed to contract through approved vendors who have applied for a permit to maintain city-owned trees. The process can differ depending on the service the homeowner wants performed. General tree pruning and removal of mistletoe, deadwood or stumps can be handled by directly hiring a vendor from the list; no prior approval or permits is required. For tree removal, you first must contact the Community Forestry Division and request tree removal. Once approved, you can contact a vendor from the approved provider list. Planting a new tree can be handled by an approved vendor, provided the tree being replanted is of the same species. If the homeowner wishes to replace a tree with an alternate species, the tree must be approved by city staff. Root cutting and pest infestations can only be handled by the Community Forestry Division.

I called several of the approved vendors to find out how much it costs to prune mistletoe from a city-owned tree. The cost can range from $150 to $750, depending on the size of the tree and the degree of mistletoe infestation, but the average seemed to be $200 to $350.

Janie Gatzman
columns@modbee.com Wednesday, Aug. 29, 2012

Mistletoe therapy may give cancer sufferers kiss of life

It normally only comes to public attention at Christmas time but mistletoe may have beneficial effects on some cancer patients in terms of life expectancy and quality of life.

Now a pilot study for a clinical trial is being planned at Aberdeen University with the aim of understanding what effect mistletoe has on immune cells in the blood of patients with cancer, and on the tumours themselves, after positive results were experienced by patients of a general practitioner in the city.

Those who say they have benefited from mistletoe treatment include former England international cricketer John Edrich who was diagnosed in 2000 with a rare form of incurable leukaemia. He was given a maximum of seven years, with treatment, to live, and underwent gruelling chemotherapy for five years. Then he learned about the mistletoe treatment, and began receiving twice-weekly injections. Mr Edrich, who lives in Aberdeenshire, said he had been advised to contact Dr Stefan Geider, a GP and qualified anthroposophic doctor, at Camphill Medical Practice in Aberdeen. The retired Test cricketer said: 'I've gradually got better and better and I've got to a stage where I'm doing everything. I'm probably better now than I have ever been. I'm 75 and I'm playing golf three times a week. 'I'm certain it has been down to the mistletoe. Otherwise, I'm sure I wouldn't be here today.'

Dr Geider said: 'I've had experience with the treatment within the context of a German university hospital and had witnessed a number of patients who showed a marked improvement with the treatment. I've used mistletoe therapy with patients here in Aberdeen for 16 years and have had similar successes. 'Typically you see an increase in energy levels, less pain, improved appetite, better sleep patterns

and improved motivation. From my clinical experience, of seeing patients for mistletoe therapy on a regular basis, it becomes clear mistletoe, with some people – though not with all – has some impact on tumour reduction. 'Mistletoe has in my experience been helpful to many of my patients, both in terms of quality of life and life expectancy, but it does not work for everybody. It should be stressed it is not a miraculous cure and we need to understand more fully how mistletoe works and why it does so for some people more than for others. Therefore we need the pilot study.'

The Mistletoe for Cancer UK website, which notes the plant has been used in cancer treatment for more than 90 years, says the introduction of the mistletoe extract from the whole plant into the body is designed to kickstart and re-educate the immune system, so it realises something is wrong and starts to fight back against the cancer.

An Aberdeen University study found 70% of breast cancer patients have taken, or are taking, complementary and alternative medicines. One of these is mistletoe which is being taken on the basis of European studies suggesting there might be an anti-cancer effect.

Steve Heys, professor of surgical oncology at the university and a consultant surgeon, said: 'A very high quality, detailed analysis reviewed all the studies of mistletoe and concluded that because of the methodological problems with these studies there is currently no evidence for an effect on survival. [But] this review also suggested there might be an effect of mistletoe on improving the quality of life in patients with breast cancer undergoing chemotherapy. Further studies are necessary to determine if there is an effect on improving quality of life in this situation. 'Given the importance of complementary and alternative medicine to patients, there is an urgent need to understand what effects these agents have both in terms of their own effects and possible drug interactions so patients may have this information to facilitate them making an informed decision as to what is important for them.'

Russell Leadbetter

Herald Scotland 26 September 2012

Varsity researchers win war on *Striga* weed with hybrid maize varieties – Magazines.

The development of three hybrid maize varieties and one for finger millet by a don at Maseno University (near Kisumu, Kenya) could offer the solution to massive crop failure as a result of *Striga* weed. Led by Prof Mathews Dida, lecturers from the university have developed Maseno EH10, EH11 and EH14 maize varieties, which emit a natural chemical component that suppresses growth of *Striga* weed in a maize farm. 'I know that my colleagues have developed sterling seeds before and I must admit that it is on some of these initiatives that I have improved mine, but what makes these particular seeds stand out is their ability to eliminate *Striga* weed in our shambas (farms),' Prof Dida said.

According to the researcher, the agricultural sector suffers close to Sh6.7 billion in losses as a result of *Striga* weed infestation. Prof Dida said that tackling the weed and the need to address the perennial food security was the overriding goal of his research that began more than 10 years ago. 'I was trying to solve some of these problems I see in farming. How can we keep importing food yet we have the some of the best climatic conditions to be able to achieve self-sufficiency in food production?' he posed. When finally taken up together with other varieties already in supply, he said that the country would be able to feed the rest of the East African community bloc. The researchers also developed Maseno 60D, a code name of the finger millet seed, which they said is not only fast maturing but also suitable for regions that experience low rainfall. The initiative was partly funded by the National Council for Science and Technology that promotes research and innovation to the tune of Sh1.7 million. Prof Dida said that in terms of output, a farmer should expect at least 12 tonnes of produce per acre compared to the current situation where some farmers harvest as low as a tonne or less from same size of farm. He said that all requisite assessment by the Kenya Plant Health Inspectorate (Kephis), which ascertains effectiveness of newly developed seeds, points to their success.

Agriculture minister Sally Kosgei will launch the new seeds soon to pave the way for commercial exploitation. They are also on display at the Kisumu agricultural show, which opened on Wednesday. Prof Dida said that the new maize varieties mature between 20 and 50 days earlier than those already in the market. 'They flower in 60 days and mature in 80 days .This represents a reduction from 125 to 80 days,' he observed. Although the seeds may thrive in almost all parts of the country, the don said that during the research, they focused on lowlands and the Lake Victoria region and coastal parts of the country, which receive relatively scarce rainfall. A seed variety with such traits will be the first of a kind in East Africa. However, similar seeds have been developed for farmers in Nigeria and South Africa. It took Prof Dida two years to develop and evaluate the millet seeds before Kephis took over to conduct independent trials. The work on maize took a little longer since the researchers had to cross-pollinate different maize seeds to obtain the superior breeds out of the originals. 'Developing new seed variety is referred to as plant breeding and demands for a lot of patience if anything good is to come out of it. Like this has taken 10 years to piece together,' he said.

By Justus Wanga
Kenya Business Daily
July 23 2012.

ICIPE and AATF in new partnership to boost *Striga* control efforts in Kenya

The International Centre for Insect Physiology and Ecology (ICIPE) and AATF in March 2012 signed a Partnership Agreement under the Integrated *Striga* Management in Africa (ISMA) project that is supported by the Bill & Melinda Gates Foundation. The agreement will see AATF and ICIPE undertake a survey on *Striga* weed management technologies in Kenya. The *Striga* weed is a highly invasive parasitic weed that attacks cereal crops. The infestation of *Striga* causes between 20 percent and 100 percent grain yield loss in many fields in Western Kenya, affecting over 250,000 hectares. It is estimated that farmers lose 300,000 tonnes (3.3 million bags or US$ 132 million) of maize grain every year in the region.

For more information visit http://www.aatf-africa.org/news/new_partnership_for_aatf_and_icipe/en/ or contact Gospel Omanya (g.omanya@aatf-africa.org)

From: AATF Partnerships Newsletter 09, Jan-Apr. 2012.

A New EU COST Action – FA1206. Strigolactones: biological roles and applications

Strigolactones (SLs) are newly discovered phytohormones that contribute to define plant morphology, also in response to environmental conditions, and to the dialogue with organisms in the rhizosphere. As a consequence, SLs have become a cutting-edge topic in plant biology and agronomy, having a great potential in modern agriculture. However, little is known about how they act, their biosynthesis and signaling pathways. Because of their both endogenous and exogenous role as signalling molecules, SLs are well placed to mediate both adaptive changes in the plant architecture and beneficial rhizosphere interactions. Even though SLs are a prime interest for many laboratories across disciplines, there are no official networks neither in Europe nor in the rest of the world on this subject. An outcome of an EU network on this subject would be sustaining and promoting the EU leadership in SLs-related sciences, the coordination of SLs research activities and a transfer of knowledge which may lead to the development of targeted and sustainable agro-technologies. The aim of this proposal is the creation of such multidisciplinary network of experts, of both basic and applied sciences, who can share expertise through the flexibility of the COST framework.

PAST MEETING

XV International Congress - Molecular Plant-Microbe Interactions, July 29-Aug 2, 2012, Kyoto, Japan.

Papers presented included:

Zachary Gaudin *et al.* – Nitrogen fluxes in the *Phelipanche ramosa/Brassica napus* interaction.

Philippe Delavault *et al.* –*Phelipanche ramosa* seed germination in response to the strigolactone analog GR24.

Thomas Peron *et al.* - The phloem network in the parasitic plant *Phelipanche ramosa*; carboxyfluorescein labelling and characterization of three sucrose transporteurs.

Bathilde Auger *et al.* - Germination stimulants of *Phelipanche ramosa* in the rhizosphere of *Brassica napus* are derived from the glucosinolate pathway.

FORTHCOMING MEETING

The 12th World Congress on Parasitic Plants (WCPP) will be held on Monday July 15 to Friday July 19, 2013 in Sheffield, UK. The venue will be the Edge Conference facility at the University of Sheffield. Further details will be provided via the conference website which will be available soon. An e-mail will be sent to everyone who receives Haustorium once the website is available, around the end of January.

Some details appear in the President's Message above.

VIDEOS ON *STRIGA*

A new NGO, Access Agriculture, has been initiated with inputs from three private media companies and financial support from the Swiss Agency for Development and Cooperation Access Agriculture functions as a global facilitator/broker for the production, translation and dissemination of agricultural training videos in developing countries. People are invited to submit their training videos. Guidelines for this are provided on the site (www.accessagriculture.org).

Along with training videos on many other topics, the series of ten 'Fighting *Striga*' videos can be watched and downloaded for free, either as video or audio file (for radio broadcasters) from the Access Agriculture website. The ten video modules focus on sorghum and pearl millet and are developed by Agro-Insight, ICRISAT, NGOs, farmer organisations and national scientists, enriched with key inputs from many African farmers involved in experimentation on integrated *Striga* and fertility

management. The videos are available in 8 languages – English, French, Bambara, Bomu, Fulani, Hausa, Mossi/Mooré, Zarma/Djarma. DVD's containing the ten video modules in these eight languages are also available for free and can be ordered from: Dr. T. van Mourik, ICRISAT-Mali, BP 320, Bamako, Mali (Tom.vanmourik@icrisatml.org). By early 2013, Access Agriculture will also make Arabic, Swahili, Portuguese and Chichewa versions of these videos available on its website. These are very high quality films and can be highly recommended to any agricultural service provider.

A range of videos developed by Agro-Insight, ICRISAT, NGOs, farmer organisations and national scientists, enriched with key inputs from many African farmers involved in experimentation on integrated *Striga* and fertility management, are available on this site The ten video modules focus on sorghum and pearl millet. They can be watched and downloaded for free, either as video or audio file (for radio broadcasters) from the Access Agriculture website. The videos are available in 8 languages – English, French, Bambara, Bomu, Fulani, Hausa, Mossi/Mooré, Zarma/Djarma. A DVD containing the ten video modules in these eight languages can be ordered from: Dr. T. van Mourik, ICRISAT-Mali, BP 320, Bamako, Mali, or via Tom.vanmourik@icrisatml.org. Individual copies are free. By early 2013, Access Agriculture will also make Arabic, Swahili, Portuguese and Chichewa versions of these videos available on its website. These are very high quality films and can be highly recommended to any agricultural service provider.

For more on the way the films were made see: http://www.new-ag.info/en/research/innovationItem.php?a=2513

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/ (N.B. currently a little out of date)

For past and current issues of Haustorium see also: http://www.odu.edu/~lmusselm/haustorium/index.shtml

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 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

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

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

For Access Agriculture (click on cereals for videos on *Striga*) see: http://www.accessagriculture.org/

For The Mistletoe Center (including a comprehensive Annotated Bibliography on mistletoes up to 1995, but apparently incomplete since then) see: http://www.rmrs.nau.edu/mistletoe/

For a compilation of literature on *Viscum album* prepared by Institute Hiscia in Arlesheim, Switzerland, see: http://www.vfk.ch/informationen/literatursuche (in German but can be searched by inserting author name).

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

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

LITERATURE

* indicates web-site reference only

Abdin, M.Z., Mirza, K.J., Salim Khan, Usha Kiran, Mauji Ram and Parwej Ahmad. 2012. Development and detection efficiency of SCAR markers of *Cuscuta reflexa* and its adulterant *Cuscuta chinensis*. Journal of Food and Drug Analysis 20(2): 471-477. [SCAR markers made it possible to detect as little as 10% of *C. chinensis* as a contaminant in *C. reflexa*.]

Adekunle, A.S., Oyewo, B.E. and Afolabi, O.K. 2012. Therapeutic efficacy of *Tapinanthus globiferus* on acetaminophen induced nephrotoxicity, inflammatory reactions and oxidative stress in albino rats. International Research Journal of Biochemistry and Bioinformatics 2(2): 41-45. [In this study, *T. globiferus* exhibited nephro-protective, anti-inflammatory and anti-oxidative properties.]

Adhikary, P., Roshan, K.C., Kayastha, D., Thapa, D., Shrestha, R., Shrestha, T.M. and Gyawali, R. 2011. Phytochemical screening and anti-microbial properties of medicinal plants of Dhunkharka community, Kavrepalanchowk, Nepal. International Journal of Pharmaceutical and Biological Archives 2(6): 1663-

1667. [Results of screening a range of plants of importance in traditional medicine in Nepal, including *Cuscuta reflexa*.]

Aitzetmüller, K. 2012. Santalbic acid in the plant kingdom. Plant Systematics and Evolution 298(9): 1609-1617. [Surveying the occurrence of santalbic acid, present in most Santalales. 'Toxic to humans, but may be of interest for technical purposes because of a reactive functional group.']

Alakonya, A. and eleven others. 2012. Interspecific RNA interference of SHOOT MERISTEMLESS-like disrupts *Cuscuta pentagona* plant parasitism. Plant Cell 24(7): 3153-3166. [Demonstrating that a gene upregulated in *C. pentagona* (= *C. campestris*) on attachment to tobacco is silenced when attaching to a transgenic host, resulting in weaker growth of the parasite and stronger host.]

Alishahi, M., Ghorbanpour, M. and Peyghan, R. 2012. Effects of *Viscum album* Linnaeus and *Nigella sativa* Linnaeus extracts on some immune responses of common carp *Cyprinus carpio* Linnaeus. Asian Fisheries Science 25(1): 15-28. [Indicating that oral administration of *V. album* extract is a potential candidate for herbal based immunostimulants in common carp.]

Alishahi, M. and Mesbah, M. 2012. (Effects of *Viscum album* and *Nigella sativa* extracts on survival rate, growth factors and resistance to *Aeromonas hydrophila* infection in gold fish (*Carassius auratus*).] (in Persian) Journal of Veterinary Research 67(3): 285-290. [A *V. album* extract, fed to goldfish increased weight and reduced bacterial infection. *N. sativa* did not.]

Alonso-Castro, A.J., Juárez-Vázquez, M.,del C., Domínguez, F., González-Sánchez, I., Estrada-Castillón, E., López-Toledo, G., Chávez, M., Cerbón, M.A. and García-Carranca, A. 2012. The antitumoral effect of the American mistletoe *Phoradendron serotinum* (Raf.) M.C. Johnst. (Viscaceae) is associated with the release of immunity-related cytokines. Journal of Ethnopharmacology 142(3): 857-864. [*P. serotinum* is used traditionally against cancer in Mexico. It shows moderate toxic effects *in vivo*, exerts cytotoxic and apoptotic effects on TC-1 cells and has antitumor effects in mice bearing TC-1 tumor and induces immunomodulatory activities *in vivo*.]

Aly, R., Eizenberg, H., Kocherman, M., Abu-Nassar, J., Taha, L. and Saadi, I. 2012. Use of ITS nuclear sequences from *Phelipanche aegyptiaca* as a direct tool to detect single seeds of broomrape species in the soil. European Journal of Plant Pathology 133(3): 523-526. [Tests with *Phelipanche aegyptiaca*, *Orobanche cumana* and *O. crenata* confirmed that the PCR-based assay was sensitive enough to detect even a single broomrape seed in the soil.]

Amar, Z., Labib, S.N., Noureddine, G. and Salah, R. 2012. Phytochemical screening of five Algerian plants and the assessment of the antibacterial activity of two *Euphorbia guyoniana* extracts. Der Pharmacia Lettre 4(5): 1438-1444. [Reporting the anti-bacterial activity of 5 species including *Parentucellia viscosa*.]

Anon. 2012. (EU-ECE inventory of forest damage (IDF) in Spain. European Network Monitoring Forest damage. Level I. Sampling results 2010.) (in Spanish) Ecología (Madrid) 24: 107-149. [Damage due to mistletoe infestations (*Viscum album?*) continue with their worrying increasing trend, and the impact of the decline process on alder forest stands near the Cantabrian coasts is confirmed.]

Anteneh Belayneh, Zemede Asfaw, Sebsebe Demissew and Bussa, N.F. 2012. Medicinal plants potential and use by pastoral and agro-pastoral communities in Erer valley of Babile Wereda, eastern Ethiopia. Journal of Ethnobiology and Ethnomedicine 8(42) (http://www.ethnobiomed.com/content/pdf/1746-4269-8-42.pdf) [Root preparations from *Hydnora johannis* are prescribed as remedies for diarrhoea, haemorrhage, wound and painful body swelling.]

Anter, S.H. and Kassim, T.A. 2011. (Effect of cutting and bronamid herbicide on growth and seed yield of of alfalfa *Medicago sativa* L. and dodder *Cuscuta* sp.) (in Arabic) Diyala Agricultural Sciences Journal 3(2): Ar241-Ar249. [Cutting to 1 cm was superior to cutting at 5 cm for control of *Cuscuta planiflora* and *C. chinensis* (or perhaps *C. campestris*?) in Iraq. Pronamide (=propyzamide) was ineffective.]

Antonova, T.S., Araslanova, N.M., Strelnikov, E.A., Ramazanova, S.A., Guchetl, S.Z. and Tchelustnikova, T.A. 2012. Some peculiarities of ontogenesis of *Orobanche cumana* Wallr., parasitizing on sunflower in Rostov region of Russian Federation. Helia 35(56): 99-109. [Noting the relatively recent development of the *Orobanche cumana* problem in the Rostov region of Russia in the 1990s, and describing some features of the plant's development including multiple stem apices on the tubercle, development of new plants from secondary infections, development of new plants from root apices without attachment to other roots, regrowth from the tubercle after the main shoot has matured and fruited, etc.]

Antonova, T.S., Araslanova, N.M., Strelnikov, E.A., Ramazanova, S.A., Tchelustnikova, T.A and Guchetl, S.Z. 2011. Screening of wild *Helianthus* species for resistance to high virulent *Orobanche cumana* Wallr. affecting sunflower in the Rostov region of the Russian Federation. Helia 34(55): 115-123. [Perennial wild *Helianthus* spp. found resistant to highly virulent *O. cumana* by Ruso *et al*. (1996) (Plant Disease pp. 1165-1169) in Spain show resistance also to *O. cumana* races F, G and H in the Rostov region.]

Anupama Chembath, Balasundaran, M. and Sujanapal, P. 2012/ Phylogenetic relationships of *Santalum album* and its adulterants as inferred from nuclear DNA sequences.

International Journal of Agriculture and Forestry 2(2): 150-156. [Presenting molecular data for the separation of *S. album* from several potential adulterant species including *Osyris wightiana, O. lanceolata* and *Ximenia americana*.]

Anusha, V., Asma, S., Ratnakumari, K., Yaminisai and Govindamma, N. 2012. Anti-depressant activity of some aroma oils on mice. International Research Journal of Pharmaceutical and Applied Sciences 2(3): 9-12. [Showing some benefit from sandalwood oil (*Santalaum album*).]

Arruda, R. and nine others. 2012. Ecology of neotropical mistletoes: an important canopy-dwelling component of Brazilian ecosystems. Acta Botanica Brasilica 26(2): 264-274. [Reviewing studies conducted in the neotropical region in order to provide a framework for current research and new ideas for future investigations of mistletoes, especially in Brazil.]

Artanti, N., Firmansyah, T. and Darmawan, A. 2012. Bioactivities evaluation of Indonesian mistletoes (*Dendrophthoe pentandra* (L.) Miq.) leaves extracts. Journal of Applied Pharmaceutical Science 2(1): 24-27. [Recording 4 hosts of *D. pentandra* - *Stelechocarpus burahol, Spondias dulcis, Annona squamosa* and *Camellia sinensis* and confirming some antioxidant and antidiabetic activity.]

Ashour, O.M., Abdel-Naim, A.B., Abdallah, H.M., Nagy, A.A., Mohamadin, A.M. and Abdel-Sattar, E.A. 2012. Evaluation of the potential cardioprotective activity of some Saudi plants against doxorubicin toxicity. Zeitschrift für Naturforschung. Section C, Biosciences 67(5/6): 297-307. [*Cynomorium comosum* exerted protective activity against DOX-induced cardiotoxicity, which is, at least partly, due to its antioxidant effect.]

Asir Benniamin, Chaturvedi, S.K., Santanu Dey and Moaakum. 2012. Supplements to the root Parasitic plant in India. A new recorded species *Christisonia siamensis* Craib. (Orobanchaceae). Taiwania 57(2): 217-221. [*C. siamensis* newly recorded in India. Including key and descriptions of Indian species.]

Auger, B., Pouvreau, J.B., Pouponneau, K., Yoneyama, K., Montiel, G., le Bizec, B., Yoneyama, K., Delavault, P., Delourme, R. and Simier, P. 2012. Germination stimulants of *Phelipanche ramosa* in the rhizosphere of *Brassica napus* are derived from the glucosinolate pathway. Molecular Plant-Microbe Interactions 25(7): 993-1004. [Making the interesting discovery that *P. ramosa* germination is triggered particularly by isothiocyanate products derived from the breakdown of glucosinolates in the rhizosphere of *B. napus* and other Brassicaceae such as *Arabidopsis* rather than by strigolactones. Raises the interesting question how the rapeseed parasite *P. ramosa* has acquired sensitivity to isothiocyanates while other races of the same species parasitise non-Brassicaceae so are apparently sensitive to other compounds (strigolactones).]

Avila-Acevedo, J.G., García-Bores, A.M., Martínez-Ramírez, F., Hernández-Delgado, C.T., Ibarra-Barajas, M., Romo de Vivar, A., Flores-Maya, S., Velasco-Lara, P. and Cespedes, C.L. 2012. Antihyperglycemic effect and genotoxicity of *Psittacanthus calyculatus* extract in streptozotocin-induced diabetic rats. Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas 11(4): 345-353. [Results support the safe use of *P. calyculatus* for diabetes and hypertension.]

Aybeke, M. 2012. Comparative anatomy of selected rhizomatous and tuberous taxa of subfamilies Orchidoideae and Epidendroideae (Orchidaceae) as an aid to identification.
Plant Systematics and Evolution 298(9): 1643-1658. [Emphasising the value of detailed anatomical studies in the identification of *Neottia, Cephalanthera, Epipactis, Limodorum, Spiranthes, Platanthera, Serapias, Himantoglossum* and *Anacamptis* spp.]

Baba, G., Lawal, A.O. and Sharif, H.B. 2012. Mosquito repellent activity and phytochemical characterization of essential oils from *Striga hermonthica, Hyptis spicigera* and *Ocimum basilicum* leaf extracts. British Journal of Pharmacology and Toxicology 3(2): 43-48. [Identifying cardiac glycosides, anthraquinone and phlobatin in *S. hermonthica* oil, and confirming potential as a mosquito repellent against *Anopheles gambiae* and *Culex quinquefasciatus*.]

Bachhav, S.S., Bhutada, M.S., Patil, S.D., Bhavana Baser and Chaudhari, K.B. 2012. Effect of *Viscum articulatum* Burm. (Loranthaceae) in N^{ω}-nitro-l-arginine methyl ester induced hypertension and renal dysfunction. Journal of Ethnopharmacology 142(2): 467-473. [Concluding that *V. articulatum* may have an antihypertensive effect in the NO deficient type of hypertension, attributable to its diuretic, nephroprotective and hypolipidemic actions, supporting its traditional use for hypertension in China.]

Badu-Apraku, B., Akinwale, R.O., Fakorede, M.A.B., Oyekunle, M. and Franco, J. 2012. Relative changes in genetic variability and correlations in an early-maturing maize population during recurrent selection. TAG Theoretical and Applied Genetics 125(6): 1289-1301. [A study aiming to predict future gains from selection for grain yield, resistance to *Striga hermonthica* and other agronomic traits, and concluding that adequate genetic variability exists in cycle 4 of the scheme to ensure future gains from selection.]

Bamane, F. H., Badr, J.M. and Amin, O.A.R.M. 2012. Antioxidant activities and flavonoid contents of selected plants belonging to Family Loranthaceae. African Journal of Biotechnology 11(78): 14380-14385. [*Plicosepalus acacia, P. curviflorus* and *Phragmanthera austroarabica* showed comparable antioxidant activity, apparently associated with their quercetin content.]

Baráth, K. 2012. A new method for evaluating host preference of *Cuscuta* species. Acta Botanica Hungarica

54(3/4): 219-234. [‘Method’ not clear but establishing that most plants could be host to *C. europaea* if there was contact, but grasses and species in nitrogen-poor habitats were less likely to be parasitized.]

Baráth, K. and Csiky, J. 2012. Host range and host choice of *Cuscuta* species in Hungary. Acta Botanica Croatica 7(1): 215-227. [An excellent detailed study of the host ranges of 7 *Cuscuta* spp.. Numbers of hosts ranged from 183 to 341 for *C. epythimum, C. campestris and C. europaea*; 77-99 for *C. lupuliformis* and *C. australis*; and 15-16 for *C. approximata* and *C. epilinum.* Concluding that these species are not host specific and are able to parasitise most plants they come into contact with. Hence host range is mostly determined by habitat differences and host availability.]

Barbu, C.O. 2012.Impact of white mistletoe (*Viscum album* ssp. *abietis*) infection on needles and crown morphology of silver fir (*Abies alba* Mill.). Notulae Botanicae, Horti Agrobotanici, Cluj-Napoca 40(2): 152-158. [A careful study confirming that infection by *V. album* is associated with significantly smaller needles, increased needle fall, and lower photosynthesis, apparently playing an important role in silver fir decline. But lacking discussion on possibility that weaker trees have increased incidence of parasite.]

Barbu, C. 2012. Photosynthetic pigments (chlorophyll a, chlorophyll b) dinamics in silver fir trees needles infected by mistletoe. Lucrări Ştiinţifice, Universitatea de Ştiinţe Agricole Şi Medicină Veterinară ‘Ion Ionescu de la Brad’ Iaşi, Seria Horticultură 55(1): 35-40. [Recording a decrease in chlorophylls in the needles of infected silver fir.]

Bassey, P., Sowemimo, A., Lasore, O., Spies, L. and van de Venter, M. 2012. Biological activities and nutritional value of *Tapinanthus bangwensis* leaves. African Journal of Biotechnology 11(73): 13821-13826. [Confirming the cytotoxic and antioxidant activities of *T. bangwensis* leaves and supporting the traditional use of the plant in cancer treatment.]

Bele, D., Tripathi, M.K., Tiwari, G., Baghel, B.S. and Tiwari, S. 2012. Microcloning of sandalwood (*Santalum album* Linn.) from cultured leaf discs. International Journal of Agricultural Technology 8(2): 571-583. [Successfully culturing *S. album* from leaf discs.]

Bhaumik, M. 2012. Two new species of *Neottia* (Orchidaceae) from India. Edinburgh Journal of Botany 69(3): 379-388. [*N. dihangensis* and *N. confusa* are described from Arunachal Pradesh.]

Bhoyar, P.K., Baheti, J.R., Lukkad, H.R., Mishra, S.H. and Jain, S.S. 2012. Formulation and evaluation of once-daily sustained release aceclofenac dendropthoe falcata gum matrix tablets. World Journal of Pharmaceutical Research 1(2): 216-223. [Confirming that dried *Dendropthoe falcata* gum can be used as a matrix forming material for making once daily sustained release matrix tablets.]

Biswas, S.K. and nine others. 2012. Phytochemical investigation and chromatographic evaluation with antimicrobial and cytotoxic potentials of *Cuscuta epithymum.* International Journal of Pharmacology 8(5): 422-427. [Showing that the methanol extract of *C. epithymum* possesses antibacterial and cytotoxic properties.]

Bommareddy, A., Rule, B., VanWert, A.L., Santha, S. and Dwivedi, C. 2012. α-Santalol, a derivative of sandalwood oil, induces apoptosis in human prostate cancer cells by causing caspase-3 activation. Phytomedicine 19(8/9): 804-811. [Oil presumably from *Santalum album*.]

Borowicz, V.A. and Armstrong, J.E. 2012. Resource limitation and the role of a hemiparasite on a restored prairie. Oecologia 169(3): 783-792. [Three after removal of *Pedicularis canadensis* the mass of grasses was almost doubled but there were smaller effects on forb species in Illinois grassland. Light levels did not affect the hemiparasite across 4 years of manipulation but fertilizer increased *P. canadensis* shoot mass.]

Boz, Ö., Doğan, M.N. and Öğöt, D. 2012. The effect of duration of solarization on controlling branched broomrape (*Phelipanche ramosa* L.) and some weed species. Julius-Kühn-Archiv 2(434): 687-693. [In one season when maximum temperatures under plastic reached 54°C, *P. ramosa* was completely controlled by 2 weeks solarization. In a second season when temperatures only reached 44.5°C, control was only 20% after 2 weeks and 74% after 6 weeks.]

Braby, M.F. 2012. The taxonomy and ecology of *Delias aestiva* Butler, 1897 stat. rev. (Lepidoptera: Pieridae), a unique mangrove specialist of Euphorbiaceae from northern Australia. Biological Journal of the Linnean Society 107(3): 697-720. [*Delias* spp. mostly feed on Snatalaceae, Loranthaceae and Viscaceae. *D. aestiva* differs in being specialized on mangroves, but was found to be able to also feed on some Loranthaceae, suggesting a recent evolutionary shift.]

Burke, A.F. and Cibrian-Tovar, D. 2012. New record of *Phloeocleptus caudatus* Wood (Coleoptera: Curculionidae: Scolytinae) in the state of Hidalgo, Mexico. Acta Zoologica Mexicana 28(1): 215-217. [Recorded on *Struthanthus deppeanus*.]

Byrne, M. and Hankinson, M. 2012. Testing the variability of chloroplast sequences for plant phylogeography. Australian Journal of Botany 60(7): 569-574. [Analysis identified a set of seven chloroplast regions that are a useful basis for informed selection of sequences for assessment of phylogeographic structure in plants in several families including Santalaceae.]

Cafasso, D. and Chinali, G. 2012. Multiple and different genomic rearrangements of the *rbc*L gene are present in the parasitic orchid *Neottia nidus-avis*. Genome, 2012,

55, 9, 629-637, [Concluding that *N. nidus-avis* contains different plastomes, each with a different pseudogene, and these can exist within the same individual plant.]

C´ebovic´, T., Popovic´, M., Rovčanin, B. and Gojkovic´, Z. 2012. Evaluation of the cytotoxic and antioxidant effects of non-polar *Viscum album* L. extract (collected from *Juniperus communis*). Fresenius Environmental Bulletin 21(6): 1454-1460. [The CO_2 extract of *V. album* contained the sesquiterpenes trans-α-bergamotene, trans-β-farnesene and vomifoliol as major extract constituents. The cytotoxic activity of the extract was assayed against EAC breast carcinoma cells and AS30D hepatoma cells *in vivo.* Volmifoliol was the most active component.]

Cemaluk, E.A.C. and Nwankwo, N.E. 2012. Phytochemical properties of some solvent fractions of petroleum ether extract of the African mistletoe (*Loranthus micranthus* Linn) leaves and their antimicrobial activity. African Journal of Biotechnology 11(62): 12595-12599. [Different fractions from *L. micranthus* (= *Ileostylus micranthus*) on *Kola acuminata* showed activity against *Pseudomonas aeruginosa, B. subtilis* and *Klebsiella*; also against *Candida albicans*.]

Chandrasekaran, K., Ramachandran, T. and Vigneswaran, C. 2012. Effect of medicinal herb extracts treated garments on selected diseases. Indian Journal of Traditional Knowledge 11(3): 493-498. [Describing a novel means of delivering medicinal herbs, including oil of *Santalum album* via impregnated clothing, apparently with some success.]

Chen Rui, Huo LiNi, Liao YanFang, Li PeiYuan, Lu RuMei and Zhang HongYi. 2013. Study on the chemical constituents of essential oils from the leaves of *Viscum ovalifolium* and *Loranthus pentapetalus* Roxb. parasitizing on *Guaiacum* spp. Asian Journal of Chemistry 25(3): 1757-1758. [Isolating a wide range of compounds from *V. ovalifolium* and *L. pentapetalus* (=*Helixanthera parasitica*).]

Chen YanSong, Zhou ShouBiao, Ou ZuLan, Xu ZhongDong, Hong Xin, Huang, Z.Y., Cao, M., Liu, Z.M. and Wang, L. 2012. (Seed mass variation in common plant species in Wanfoshan Natural Reservation Region, Anhui, China.) (in Chinese) Chinese Journal of Plant Ecology 36(8): 739-746. [*Aeginetia indica* the smallest (0.006 g).]

Chivandi, E., Davidson, B.C. and Erlwanger, K.H. 2012. Red sour plum (*Ximenia caffra*) seed: a potential nonconventional energy and protein source for livestock feeds. International Journal of Agriculture and Biology 14(4): 540-544. [A study in S. Africa concluded that *X. caffra* seed could be exploited both as an energy and protein source in feeds for livestock.]

Cotter, M., de la Pena-Lavander, R. and Sauerborn, J. 2012. Understanding the present distribution of the parasitic weed *Striga hermonthica* and predicting its potential future geographic distribution in the light of climate change. Julius-Kühn-Archiv 2(434): 630-636. [An interesting analysis of possible future distribution of *S. hermonthica* (in Africa only). Showing potential for extension into central Africa, while global warming may result in intensified occurrence in central and southern Africa and perhaps restrict its intensity in parts of West Africa.]

Crichton, R.J., Squirrell, J., Woodin, S.J., Dalrymple, S.E. and Hollingsworth, P.M. 2012. Isolation of microsatellite primers for *Melampyrum sylvaticum* (Orobanchaceae), an endangered plant in the United Kingdom. American Journal of Botany 99(11): e457-e459. [‘The results show the utility of these novel polymorphic microsatellite markers for further conservation genetic analyses. The strong deficit of heterozygosity across all loci in the local sample suggests the species may be inbreeding.]

Daramwar, P.P., Srivastava, P.L., Priyadarshini, B. and Thulasiram, H.V. 2012. Preparative separation of α- and β-santalenes and (*Z*)-α- and (*Z*)-β-santalols using silver nitrate-impregnated silica gel medium pressure liquid chromatography and analysis of sandalwood oil. Analyst 137(19): 4564-4570.

de Vega, C. and Herrera, C.M. 2012. Relationships among nectar-dwelling yeasts, flowers and ants: patterns and incidence on nectar traits. Oikos 121(11): 1878-1888. [The nectar fungus, *Metschnikowia reukaufii*, introduced to the flowers of *Cytinus hypocistis* by ants, is shown to decrease the quality of the nectar and may influence pollinator behaviour.]

Delaux, P.M., Xie, X., Timme, R.E., Puech-Pages, V., Dunand, C., Lecompte, E., Delwiche, C.F., Yoneyama, K., Bécard Origin of strigolactones in the green lineage, G. and Séjalon-Delmas, N. 2012.. New Phytologist 195(4): 857-871. [Detecting strigolactones in liverworts and in some other lower green plants but concluding that their function in these is to control rhizoid elongation.]

Ding, L.L., Zhao, S.F., Zhang, X.K., Yao, Z.Q. and Zhang, J. 2012. Sclerotinia rot of broomrape (*Orobanche cumana*) caused by *Sclerotinia sclerotiorum* in China. Plant Disease 96(6): 916.

Ding LiLi, Zhang XueKun, Zhao SiFeng, Yao ZhaoQun and Du Juan. 2012. (Isolation and identification of pathogen of *Orobanche cumana* stem-rot disease in Xinjiang.) (in Chinese) Xinjiang Agricultural Sciences 49(6): 1096-1102. [Noting that *O. cumana* is a serious problem in Xinjiang. Isolating 377 samples of pathogen most of which were *Fusarium* spp, including *F. oxysporum, F.solani* and *F. cerealis*, also *Rhizoctonia* and *Pythium*.]

Dixon, E. 2012. Vancouver Ground cone (*Boschniakia hookeri*). Douglasia Journal of the Washington Native Plant Society 36(4):1. (A brief, illustrated note on the presence of this parasite in Washington State where it is not rare but always fascinating to find.)

Drumeva, M. 2012. Development and testing of experimental sunflower hybrids obtained by using doubled haploid lines. Agricultural Science and Technology 4(3): 196-200. [Testing 17 new hybrids, 12 of which showed full resistance to both downy mildew and *Orobanche cumana* (races E-F) and moderate resistance to phoma and phomopsis.]

Durdun, C., Crivineanu, M., Papuc, C. and Nicorescu, V. 2011. Effect of some polyphenolic extracts from medicinal plants on antioxidant enzymes systems. *In vivo* studies. Scientific Works - University of Agronomical Sciences and Veterinary Medicine, Bucharest Series C, Veterinary Medicine 57(3): 52-60. [Observing anti-oxidant activity in extracts of *Viscum album*.]

Eaton, D.A.R., Fenster, C.B., Hereford, J., Huang, S.Q. and Ree, R.H. 2012. Floral diversity and community structure in *Pedicularis* (Orobanchaceae). Ecology 93(8S): S182-S194. [Results suggest that a dynamic mosaic of pollinator-mediated interactions among *Pedicularis* spp. in the Hengduan region of China promotes ecological sorting through recurrent selection against reproductive interference, causing rapid species turnover, and accelerating the rate of floral divergenc, together contributing to the florally diverse species of *Pedicularis* endemic to the this biodiversity hotspot.]

Encheva, J., Shindrova, P., Encheva, V. and Penchev, E. 2012. Sunflower commercial hybrid Yana, developed with mutant restorer line R 12003. Helia 35(56): 47-59. [Hybrid Yana developed from line 12003 (see next) X Bulgarian line *cms*2607 retains immunity to *Orobanche cumana* races A-F.]

Encheva, J., Shindrova, P., Encheva, V. and Valkova, D. 2012. Mutant sunflower line R 12003, produced through *in vitro* mutagenesis. Helia 35(56): 19-30. [Following ultrasound treatment sunflower line 12003 was subjected to repeated selfing and selection and confirmed fully resistant to *Orobanche cumana* races A-F.]

Encheva, J., Valkova, D. and Shindrova, P. 2012. Mutant sunflower line R 171, produced through *in vitro* mutagenesis of immature embryos. Bulgarian Journal of Agricultural Science 18(3): 342-347. [Noting a new mutant line 171 RM with resistance to *Orobanche cumana*.]

Faleyimu, O.I., Ijeomah, H.M., and Oso, A.O. 2011. Medicinal utilization of roots of forest plants in Lere Local Government Area of Kaduna State, Nigeria. Journal of Agriculture and Social Research (JASR) 11(2): 51-66. [Noting *Opilia celtidifolia* and *Ximenia americana* among species used medicinally in Kaduna State.]

Feng Dan and Chen GuiLin, 2012. Research advancements on biological functions of strigolactones. In: Welbaum, G.E., Nektarios, P.A., Monteiro, J.A. and Fernández-Escobar, R. (eds) Acta Horticulturae 938: 63-68. [Reviews the importance of strigolactones in the rhizosphere, the regulation of plant architecture (including response to low phosphate) and the possible future applications for strigolactones in agriculture.]

Fernández-Aparicio, M., Garcia-Garrido, J.M., Ocampo, J.A. and Rubiales, D. 2012. Colonisation of field pea roots by arbuscular mycorrhizal fungi reduces *Orobanche* and *Phelipanche* species seed germination. Weed Research 50(1): 262-268. [Infection of roots of pea by *Glomus mosseae* and *G. intraradices* resulted in reduced germination of *O. crenata*, *O. foetida* and *P. aegyptiaca* in root exudates after 15 days.]

Fernández-Aparicio, M., Moral, A., Kharrat, M. and Rubiales, D. 2012. Resistance against broomrapes (*Orobanche* and *Phelipanche* spp.) in faba bean (*Vicia faba*) based in low induction of broomrape seed germination. Euphytica 186(3): 897-905. [Confirming that the resistance of two breeding lines (Navio and Quijote – based on material resistant to *O. foetida* in Tunisia – this in turn developed from crosses INIA06 × F402 selected for resistance to *O. crenata* by ICARDA) is based largely on low stimulation of germination of *O. crenata*, *O. foetida* and *O. aegyptiaca*.]

Feyssa, D.H., Njoka, J.T., Zemede Asfaw and Nyangito, M.M. 2012. Uses and management of *Ximenia americana*, *Olacaceae* in semi-arid east Shewa, Ethiopia. Pakistan Journal of Botany 44(4): 1177-1184. [*X. americana* is not domesticated but is a valuable wild resource,, mainly for its edible fruit but roots and other parts are used for medicine.]

Fischer, E., Darbyshire, I. and Cheek, M. 2011. *Striga magnibracteata* (Orobanchaceae) a new species from Guinée and Mali. Kew Bulletin 66(3): 441-445. [*S. magnibracteata* is newly described from the Guinean savannas of eastern Guinée and southwestern Mali. Its affinity to *S. klingii* *S. dalzielii* and *S. macrantha* is discussed.]

Fontúrbel, F.E., Franco, M., Rodríguez-Cabal, M.A., Rivarola, M.D. and Amico, G.C. 2012. Ecological consistency across space: a synthesis of the ecological aspects of *Dromiciops gliroides* in Argentina and Chile. Naturwissenschaften 99(11): 873-881. [*D. gliroides* is 'a key seed disperser of many native plant species, including the keystone mistletoe *Tristerix corymbosus*.']

Gao MeiLi, Li YongFei, Yang JianXiong and Wang YiLi. 2012. Effects of *n*-butanol and water fractions from *Pedicularis decora* Franch on oxidative stress in mice induced by a single bout of swimming exercise. Journal of Medicinal Plants Research 6(39): 5186-5195. [*P. decora* fractions protected mice from oxidative stress induced by a single bout swimming exercise through a decrease in LPO levels, SOD, GPx, LDH.]

Gebauer, R., Volařík, D. and Urban, J. 2012. *Quercus pubescens* and its hemiparasite *Loranthus europaeus*: nutrient dynamics of leaves and twigs. Acta

Physiologiae Plantarum 34(5): 1801-1809. [Nutrients seemed to be transferred passively through the xylem sap between *Loranthus* and *Quercus* as there was a strong correlation between the calcium and potassium concentrations within the species and between the species, Nitrogen appeared to be the limiting nutrient for the parasite.]

Gbolade, A. 2012. Ethnobotanical study of plants used in treating hypertension in Edo State of Nigeria. Journal of Ethnopharmacology 144(1): 1-10. [Plants frequently included in antihypertensive recipes in southern Nigeria included '*Viscum album'*, probably a misnomer for a *Tapinanthus* spp. (see Wahab *et al*. below).]

Ghantous, K.M. and Sandler, H.A. 2012. Mechanical scarification of dodder seeds with a handheld rotary tool. Weed Technology 26(3): 485-489. [Good germination of small seed lots of *Cuscuta gronovii* (probably but some doubt) was obtained using a hand-held rotary tool at the 10,000 rpm setting with a conical grinding-stone bit attached.]

Ghotbi, M., Dehghan, M.A. and Ghotbi, M. 2011. Effect of nutritional regime on expression of pathogenicity of *Fusarium oxysporum* against *Orobanche aegyptiaca* Pers. International Journal of AgriScience 1(4): 210-231. [Identifying *F. oxysporum* isolates Iran-502 and Iran-507 as formae speciales (f.sp.) pathogenic to *O. aegyptiaca*, and describing ways of improving the culture and application of the spores, including the use of glycerol.]

Ghotbi, M., Rouhi, H.R., Dehaghi, M.A., Ghotbi, M., Khamseh, A.R.M. and Wahsha, M. 2012. Mitigate *Phelipanche aegyptiaca* Pers. infestation considering natural environment conservation. International Journal of AgriScience 2(1): 62-77. [Pot experiments suggested a wide range of possible trap crop species for control of *P. aegyptiaca* (in Iran), but technique not ideal.]

Gibot-Leclerc, S., Sallé, G., Reboud, X. and Moreau, D. 2012. What are the traits of *Phelipanche ramosa* (L.) Pomel that contribute to the success of its biological cycle on its host *Brassica napus* L.?, Flora (Jena) 207(7): 512-521. [A detailed analysis of the germination, attachment and development of *P. ramosa* on oilseed rape and noting up to 90% yield losses recorded in France.]

Gimenez, M.C., Hidalgo, M.J., Petenatti, E.M., del Vitto, L.A., Marchevsky, E.J. and Pellerano, R.G. 2012. Multivariate characterization of 'Argentinean mistletoe', *Ligaria cuneifolia* (Loranthaceae) according to their mineral nutrient composition. Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas 11(3): 233-240.

Goldwasser, Y., Miranda Sazo, M.R. and Lanini, W.T. 2012. Control of field dodder (*Cuscuta campestris*) parasitizing tomato with ALS-inhibiting herbicides. Weed Technology 26(4): 740-746. [Pot and field studies confirmed the selectivity of sulfosulfuron early post-emergence at 50 or 100 g/ha for control of *C. campestris.* Rimsulfuron, halosulfuron, and flazasulfuron were less effective.]

Gonmadje, C.F. Doumenge, C., Sunderland, T.C.H., Balinga, M.P.B. and Sonké, B. 2012. Phytogeographical analysis of Central African forests: the Ngovayang massif (Cameroon). Plant Ecology and Evolution 145(2): 152-164. [Referring to Olacaceae as a major component of lowland forest in Cameroon.]

Gosline, G. and Malécot, V. 2011. A monograph of *Octoknema* (Octoknemaceae-Olacaceae *s.l.*). Kew Bulletin 66(3): 367-404. [Providing a revision of *Octknema* and description of 14 species including 6 newly described.]

Grabher, P., Durieu, E., Kouloura, E., Halabalaki, M., Skaltsounis, L.A., Meijer, L., Hamburger, M. and Potterat, O. 2012. Library-based discovery of DYRK1A/CLK1 inhibitors from natural product extracts. Planta Medica 78(10: 951-956. [Including results with kaempferol from *Cuscuta chinensis.]*

Guimarães, A.C., Magalhães, A., Nakamura, M.J., Siani, A.C., Barja-Fidalgo, C. and Sampaio, A.L.F. 2012. Flavonoids bearing an *O*-arabinofuranosyl-(1->3)-rhamnoside moiety from *Cladocolea micrantha*: inhibitory effect on human melanoma cells. Natural Product Communications 7(10): 1311-1314. [bBsed on studies with *C. micrantha* (Loranthaceae) in Brazil.]

Gulati, V., Harding, I.H. and Palombo, E.A. 2012. Enzyme inhibitory and antioxidant activities of traditional medicinal plants: potential application in the management of hyperglycemia. BMC Complementary and Alternative Medicine 12(77) (http://www.biomedcentral.com/content/pdf/1472-6882-12-77.pdf) [*Santalum album* among plant extracts having good potential for the management of hyperglycemia, diabetes and the related condition of oxidative stress.]

Gulnur; Halik, U., Matruzi, A. and Welp, M. 2012. Study on the high and stable yield cultivation techniques of *Cistanche tubulosa* (Schenk) Wight. Medicinal Plant 3(8): 16-18. [The success rate of *C. tubulosa* inoculation on *Tamarix* sp. was influenced by inoculation method, inoculation distance, inoculation time and planting mode, also by inoculation depth and irrigation time.]

Hadi, M.R.H.S. 2012. Using *Fusarium solani* for broomrape (*Orobanche aegyptiaca*) control in tomato. International Journal of Agriculture and Crop Sciences (IJACS) 4(1): 24-27. [Some apparent increase in tomato yield from inoculation of roots with *Fusarium solani* but significance doubtful. In Iran.]

Hamiaux, C., Drummond, R.S.M., Janssen, B.J. 2012. DAD2 is an α/β hydrolase likely to be involved in the perception of the plant branching hormone, strigolactone. Current Biology 22(21): 2032-2036. [A crystal structure of DAD2 (ortholog of D14) and biochemical evidence showing that DAD2 can

hydrolyse GR24 provide compelling evidence that DAD2/D14 is involved in the recognition/perception of strigolactones.]

Han LiFeng, Boakye-Yiadom, M., Liu ErWei, Zhang Yi, Li Wei, Song XinBo, Fu FengHua and Gao XiuMei. 2012. Structural characterisation and identification of phenylethanoid glycosides from *Cistanches deserticola* Y.C. Ma by UHPLC/ESI-QTOF-MS/MS. Phytochemical Analysis 23(6): 668-676. [Describing a rapid method for the identification of phenylethanoid glycosides in the crude extract of *Cistanche deserticola* which can be used for rapid prediction of the chemical constituents and qualities of the plant.]

Han LiFeng, Ji LiNa, Boakye-Yiadom, M., Li Wei, Song XinBo and Gao XiuMei. 2012. Preparative isolation and purification of four compounds from *Cistanches deserticola* Y.C. Ma by high-speed counter-current chromatography. Molecules 17(7): 8276-8284. [Four phenyl-ethanoid glycosides identified.]

Hassan, M.M., Osman, A.G., Yagoub, S.O., Sherif, A.M., Rugheim, A.M.E., Mohamed, I.S., Gani, M.E.A. and Babiker, A.G.E. 2012. Effects of bacterial strains and chicken manure on *Orobanche crenata* infesting faba bean. Agricultural Journal 7(2): 122-127. [In a pot experiment faba bean inoculated with *Rhizobium* TAL 1399 alone or in combinations with *Bacillus megatherium* var phosphaticum or *Azospirillum braziliense* plus chicken manure at 35 g pot^{-1} greatly delayed emergence of *O, crenata* and increased faba bean growth.]

Hassan, M.M., Sugmuto, Y., Babiker, A.G.E., Yamauchi, Y., Osman, M.G.E. and Yagoub, S.O. 2010. Effect of NaCl on *Orobanche* spp and *Striga hermonthica* seeds germination during and after conditioning. Bioscience Research 7(1): 26-31. [Concentrations of NaCl at 100mM decreased germination of *Orobanche minor*, *O. crenata* and *Striga hermonthica*.]

Hassan, M.M., Yagoub, S.O. and Gabouch, N.A. 2010. Effect of different levels of organic manure on *Striga hermonthica* (Del.) Benth. and sorghum growth. Bioscience Research 7(1): 32-38. [In a pot experiment, a combination of chicken manure and nitrogen at 95 kg/ha reduced *S. hermonthica* infestation by 60%. Nitrogen alone reduced it by 83%.]

Henríquez-Velásquez, C., Henríquez, J.M. and Aravena, J.C. 2012. Damage caused by mistletoe *Misodendrum punctulatum* Banks Ex Dc. on architecture and radial growth of *Nothofagus pumilio* (Poepp. et Endl.) Krasser forests of southern Chile. Austral Ecology 37(7): 816-824. [*N. pumilio* trees severely infected by *M. punctulatum* showed significantly reduced growth rate.]

Hersch-Green, E.I. 2012. Polyploidy in Indian paintbrush (*Castilleja*; Orobanchaceae) species shapes but does not prevent gene flow across species boundaries. American Journal of Botany 99(10): 1680-1690.

Hladni, N., Dedic´, B., Jocic´, S., Miklič, V. and Dušanic´, N. 2012. Evaluation of resistance of new sunflower hybrids to broomrape in the breeding programs in Novi Sad. Helia 35(56): 89-98. [Nine out of 15 hybrids tested showed complete immunity to *Orobanche cumana* race E in Serbia. Of these NS-H-6385 and NS-H-6396 were the most high-yielding.]

Hobbie, E.A. and Högberg, P. 2012. Nitrogen isotopes link mycorrhizal fungi and plants to nitrogen dynamics. New Phytologist 196(2): 367-382. [A review noting that parasitic plants and autotrophic hosts are similar in $\delta^{15}N$, mycoheterotrophic plants are higher in $\delta^{15}N$ than their fungal hosts, presumably with preferential assimilation of fungal protein, and autotrophic, mycorrhizal plants are lower in ^{15}N than their fungal symbionts, with saprotrophic fungi intermediate, because mycorrhizal fungi transfer ^{15}N-depleted ammonia or amino acids to plants.]

*Huang, K., Mellor, K.E., Paul, S.N., Lawson, M.J., Mackey, A.J. and Timko, M.P. 2012. Global changes in gene expression during compatible and incompatible interactions of cowpea (*Vigna unguiculata* L.) with the root parasitic angiosperm *Striga gesnerioides*. BMC Genomics 13(402) (http://www.biomedcentral.com/content/pdf/1471-2164-13-402.pdf) [Studying the difference in response of cowpea variety B.301 to non-virulent and virulent (Benin/Zakpota) races of *S. gesnerioides* and tracking the distinct changes in global gene expression profiles following successful and unsuccessful attempted parasitism.]

Huang, K., Whitlock, R., Press, M.C. and Scholes, J.D. 2012. Variation for host range within and among populations of the parasitic plant *Striga hermonthica*. Heredity (Edinb) 108(2): 96-104. [The developmental success of *S. hermonthica* on different rice-host cultivars depended significantly on a parasite population by host-genotype interaction. Genetic analysis using AFLP markers revealed that a small subset of markers showed 'outlier' genetic differentiation among sub-populations of *S. hermonthica* attached to different host cultivars.]

Irum Mukhtar, Sobia Mushtaq, Amna Ali and Ibatsam Khokhar. 2010. Epiphytic and endophytic phyllosphere microflora of *Cassytha filiformis* L. and its hosts. Ecoprint: An International Journal of Ecology 17: 1-8. [Identifying 4 bacterial endophytes in tissues of *C. filiformis* which were distinct from those in hosts *Bougainvillea spectabilis* and *Citrus aurantifolia*.]

Irum Mukhtar, Sobia Mushtaq, Amna Ali and Ibatsam Khokhar 2012. Phyllospheric microflora of *Cuscuta pedicillata* Ledeb. and its host *Trifolium alexandrinum* L. Sarhad Journal of Agriculture 28(3): 437-441. [*C. pedicillata* and its host had quite distinct endophytic and epiphytic bacterial flora that did not obverlap.]

Isah, K.M. and Niranjan Kumar. 2012. Influence of non-host crop rotation on the reaction of cereal host crop genotypes to *Striga hermonthica* of different ecotypes. Indian Journal of Scientific Research (IJSR) 3(1): 179-190. [In a pot experiment, groundnut var. SAMNUT 11, soybean var. TGx 1448-2E, cowpea var. SAMPEA 7 and cotton var. SAMCOT 10 reduced *Striga* parasitism and increased growth vigour and productivity more than other varietis of the tested trap-crops.]

Ismaila, M.S. and Adamu, S.A. 2012. The impact of traditional methods of managing snake bite in humans and livestock among the Hausa-Fulani communities of Sokoto State (North-western Nigeria)., Journal of Medicinal Plants Research 6(28): 4489-4493. [*Ximenia americana* among plants used for snake-bite.]

Jamil, M., Kanampiu, F.K., Karaya, H., Charnikhova, T. and Bouwmeester, H.J. 2012. *Striga hermonthica* parasitism in maize in response to N and P fertilisers. Field Crops Research134: 1-10. [In pot experiments *S. hermonthica* parasitism on maize was suppressed by both N and P and this strongly correlated to the reduced exudation of strigolactones under high levels of N and P. In the field in Kenya, there was also a *Striga* suppressive effect of N application but the effect of P was less pronounced than in the greenhouse, likely due to unpredictable P availability in Kenyan field soil.]

*Jamil, M., Van Mourik, T.A., Charnikhova, T. and Bouwmeester, H.J. (in press). Effect of di-ammonium phosphate application on strigolactone production and *Striga hermonthica* infection in three sorghum cultivars. Weed Research (http://onlinelibrary.wiley.com/doi/10.1111/wre.12003/pdf) [In a combination of field and glasshouse experiments, the effect of a microdose of phosphate fertiliser (DAP) was evaluated on the production of strigolactones and *Striga hermonthica* infection in three different African sorghum genotypes. Microdose DAP application reduced secretion of strigolactones into the rhizosphere and *S. hermonthica* parasitism both under controlled and field conditions.]

Jayanthi, J., Karthigeyan, K. and Sumathi, R. 2012. *Epirixanthes* Blume - a new genus addition to the mycoheterotrophic flora of Andaman & Nicobar Islands, India. Indian Journal of Forestry 35(2): 273-274.

Jia YaMin, Guan QiuNong, Guo YuHai and Du CaiGan 2012. Reduction of inflammatory hyperplasia in the intestine in colon cancer-prone mice by water-extract of *Cistanche deserticola*. Phytotherapy Research 26(6): 812-819. [Confirming useful activity of *C. deserticola* against colorectal cancer in mice.]

Jigam, A.A., Abdulrazaq, U.T., Mahmud, H.A. and Tijani, F.O. 2012. Efficacy of *Thonningia sanguinea* Vahl. (Balanophoraceae) root extract against *Plasmodium berghei*, *Plasmodium chabaudi*, inflammation and nociception in mice. Journal of Applied Pharmaceutical Science 2(1): 47-51. [Results moderate only but *T. sanguinea* could be worth further investigation against *P. berghei*.]

Jin ShangWu, Eerdunbayaer; Doi AiRi, Kuroda, T., Zhang GuiXia, Hatano, T. and Chen GuiLin. 2012. Polyphenolic constituents of *Cynomorium songaricum* Rupr. and antibacterial effect of polymeric proanthocyanidin on methicillin-resistant *Staphylococcus aureus*. Journal of Agricultural and Food Chemistry 60(29): 29, 7297-7305. [Identifying cynomoriitannin as a polymeric proanthocyanidin predominantly composed of epicatechin, together with low proportions of epicatechin-3-*O*-gallate and catechin as extension units, with activity against MRSA.]

Jonasson, I. 2011. (Present status of *Bromus racemosus* in Sweden.) (in Swedish) Svensk Botanisk Tidskrift 105(6): 299-305. [Noting local association of *B. racemosus* with *Rhinanthus angustifolius*.]

Joshi, A.A., Patel, B.H. and Parmar, R.R. 2012. Anti-oxidant potential of *Dendrophthoe trigona* (Wt. and Arn.) Danser. Current Pharma Research 2(4): 631-633. [Confirming antioxidant activity in *D. trigona* growing on *Ficus racemosa*.]

Jung HoeYune and eleven others. 2012. Korean mistletoe (*Viscum album coloratum*) extract improves endurance capacity in mice by stimulating mitochondrial activity. Journal of Medicinal Food 15(7): 621-628. [Demonstrating that *V. album coloratum* induces mitochondrial activity, possibly by activating *PGC-1α* and *SIRT1*.]

Kaeser, M.J. and Kirkman, L.K. 2012. Seed longevity of 12 native herbaceous species in a fire-maintained pine savanna after 8 years of burial. Forest Ecology and Management 281: 68-74. [Seeds of the perennial *Schwalbea americana* (Orobanchaceae) survived 4 years burialin soil but not 8 years.]

Kaitera, J., Hiltunen, R. and Samils, B. 2012. Alternate host ranges of *Cronartium flaccidum* and *Cronartium ribicola* in northern Europe. Botany 90(8): 694-703. [*C. ribicola* formed uredinia or telia on 10 species including *Pedicularis palustris* subsp. *palustris* and *Bartsia alpina.*]

Kaitera, J. and Hiltunen, R. 2012. New alternate hosts for the rusts *Cronartium ribicola* and *Cronartium flaccidum* in Finland. Canadian Journal of Forest Research 42(9): 1661-1668. [Establishing that the pine rusts *C. ribicola* and *C. flaccidum* could infect a range of wild hosts including *Bartsia albina and Euphrasia stricta*.]

Kakpure, M.R. and Rothe, S.P. 2012. Phytochemical screening of *Alectra parasitica* A. Rich - a rare medicinal parasitic plant. Advance Research in Pharmaceuticals and Biologicals 2(1): 103-111. [Analysing a range of potentially interesting components, flavonoids etc. in extracts from *A. parasitica*.]

Kakpure, M.R. and Rothe, S.P. 2012. Qualitative phytochemical screening of Indian witchweed: *Striga asiatica* (L.) O. Ktze - an unexplored medicinal parasitic plant. Journal of Experimental Sciences 3(3): 28-31. [As above, for *S. asiatica*.]

Kaminski, L.A., Barbosa, E.P. and Freitas, A.V.L. 2012. Immature stages of the neotropical mistletoe butterfly *Cunizza hirlanda planasia* fruhstorfer (Pieridae: Anthocharidini). Journal of the Lepidopterists' Society 66(3): 143-146. [Describing eggs and early stages of *C. hirlanda* on *Passovia ovata* (Loranthaceae) in Brazil.]

Kang Jing, Li XuWen, Geng JiaYang, Han Lu, Tang JieLi, Jin YongRi and Zhang YiHua. 2012. Determination of hyperin in seed of *Cuscuta chinensis* Lam. by enhanced chemiluminescence of CdTe quantum dots on calcein/$K_3Fe(CN)_6$ system. Food Chemistry 134(4): 2383-2388. [Defining a technique for the measurement of hyperin in *C. chinensis* (in China).]

Kavanagh, P.H. and Burns, K.C. 2012. Mistletoe macroecology: spatial patterns in species diversity and host use across Australia. Biological Journal of the Linnean Society 106(3): 459-468. [Data collected on the distribution and host use of 65 species of Loranthaceae mistletoes across Australia. Generally suppporting the prediction that greater host generality is likely to evolve in regions with greater host diversity while regions with fewer potential hosts lead to the evolution of host specialization.]

Kohlen, W., López Ráez, J.A., Pollina, T., Lammers, M., Toth, P., Charnikhova, T., de Maagd, R., Pozo, M.J., Bouwmeester, H.J. and Ruyter-Spira, C. 2012. The tomato *CAROTENOID CLEAVAGE DIOXYGENASE8* (*SlCCD8*) is regulating rhizosphere signaling, plant architecture and reproductive development through strigolactone biosynthesis. New Phytologist 196: 535–547. [Transgenic SlCCD8 RNAi tomato lines exhibited strongly reduced strigolactone production. They displayed a.o. increased shoot branching, and infestation by *Phelipanche ramosa* was reduced by 90% while arbuscular mycorrhizal symbiosis was only mildly affected. This demonstrates that reduction of strigolactone biosynthesis could be a suitable tool in parasitic weed management.]

Kokubugata, G., Nakamura, K., Forster, P.I., Wilson, G.W., Holland, A.E, Hirayama, Y. and Yokota, M. 2012. *Cassytha pubescens* and *C. glabella* (Lauraceae) are not disjunctly distributed between Australia and the Ryukyu Archipelago of Japan - evidence from morphological and molecular data. Australian Systematic Botany 25(5): 364-373. [Concluding that that plants considered as *C. pubescens* and *C. glabella* in the Ryukyus are to be respectively treated as *C. filiformis* and the Ryukyu endemic species *C. pergracilis*.]

Kolon, K., Samecka-Cymerman, A., Klink, A. and Kempers, A.J. 2013. *Viscum album* versus host (*Sorbus aucuparia*) as bioindicators of urban areas with various levels of pollution. Journal of Environmental Science and Health. Part A, Toxic/Hazardous Substances & Environmental Engineering 48(2): 205-210. [Comparing accumulation of metals by *V. album* and *S. aucupana* in a region of Poland with high zinc levels.]

Konan, K.S., Toure, A., Ouattara, K., Djaman, A.J. and N'Guessan, J.D. 2012. *In vitro* anticoccidial activity of *Thonningia sanguinea* extract on *Eimeria tenella* and *Eimeria necatrix* sporozoites cells. African Journal of Microbiology Research 6(33): 6247-6251. [Extracts of *T. sanguinea* show some promise against drug-resistant avian coccidiosis.]

Kopan´ska, M., Formicki, G., Stawarz, R., Gren´, A. and Kraska, K. 2012. Analysis of hemoglobin (HB) concentration in circulating blood of mice after intra-peritoneal injection of Iscador. Journal of Microbiology, Biotechnology and Food Sciences 2(2): 484-492. [Confirming raised levels of haemoglobin after treatment with Iscador (extract of *Viscum album*).]

Koua, F.H.M. 2011. *Striga hermonthica* (Del.) Benth: phytochemistry and pharmacological properties outline. Journal of Applied Pharmaceutical Science 1(7): 1-5. [Noting a wide range of traditional uses for *S. hermonthica*; for abortion, dermatosis, diabetes, leprosy ulcer, pneumonia and jaundice remedy, trypanocidal effects; also antibacterial and anti-plasmoidal activities have been recorded.]

Krishan Lal and Rawat, G.S. 2012. Additions to the flora of Himachal Pradesh from Sirmour District-III. Indian Journal of Forestry 35(2): 255-258. [A new record for *Striga angustifolia*.]

Kumar, A.N.A., Joshi, G. 2012. Incidence of sandal spike symptoms in a one-year-old plantation in Karnataka. Current Science 103(6): 613-614. [Noting occurrence of the phytoplasma disease sandal spike in *Santalum album*, also occurring on *Stachytarpheta indica*.]

Kumar, U.A., Manjunath, C., Thaminzhmani, T., Kiran, Y.R. and Brahmaiah, Y. 2012. A review on immunomodulatory activity plants. Indian Journal of Novel Drug Delivery 4(2): 93-103. [Including reference to *Viscum album*.]

Ladurner, A., Atanasov, A.G., Heiss, E.H., Baumgartner, L., Schwaiger, S., Rollinger, J.M., Stuppner, H. and Dirsch, V.M. 2012. 2-(2,4-dihydroxyphenyl)-5-(*E*)-propenylbenzofuran promotes endothelial nitric oxide synthase activity in human endothelial cells. Biochemical Pharmacology 84(6): 804-812. [Involving lignan derivatives isolated from the roots of the anti-inflammatory medicinal plant *Krameria lappacea*.]

Leakey, R. 2012. Case studies from the Pacific. In: Leakey, R. (ed.) Living with the trees of life. Towards the transformation of tropical agriculture. CABI, Wallingford, UK, pp.112-124. [Including comment on the parallel exploitation of *Santalum austrocaledonicum* in Vanuatu, and *S. lanceolatum* in Queensland, Australia.]

Lechat, M.M., Pouvreau, J.B., Péron, T., Gauthier, M. Montiel, G., Véronési, C., Todoroki, Y., Le Bizec, B., Monteau, F., Macherel, D., Simier, P., Thoiron, S. and Delavault, P. 2012. PrCYP707A1, an ABA catabolic gene, is a key component of *Phelipanche ramosa* seed germination in response to the strigolactone analogue GR24. Journal of Experimental Botany 63(14): 5311-5322, [Demonstrating that *P. ramosa* seed dormancy release relies on ABA catabolism mediated by the GR24-dependent activation of *PrCYP707A1*. In addition, *in situ* hybridization corroborates the putative location of cells receptive to the germination stimulants in seeds.]

Lee KeyongHo, Kim ByeongSoo and Rhee KiHyeong. 2012. (Screening of herbal medicines for phosphodiesterase 5 inhibitor.) (in Korean) Korean Journal of Pharmacognosy 43(2): 184-191. [*Cuscuta chinensis* among preparations with activity as herbal medicines for erectile dysfunction.]

Li AiRong, Smith, F.A., Smith, S.E. and Guan KaiYun. 2012. Two sympatric root hemiparasitic *Pedicularis* species differ in host dependency and selectivity under phosphorus limitation.
CSIRO, Collingwood, Australia, Functional Plant Biology 39(9): 784-794. [*Pedicularis rex* and *P. tricolor* showed different host specificity. Overall, *P. rex* showed much weaker host dependency and less damage to hosts than *P. tricolor*. Concluding that different *Pedicularis*-host pairs showed different interaction patterns and hence differential influence on plant community structure and productivity.]

Li ChunMing, Chen ShuYan, Xu ChangLin, Yang Lei, Chen JianGang and Zhang DeGang. 2012. Size and species composition of soil seed bank in sowed pastures of eastern Qilian Mountains of alpine area. Acta Agrestia Sinica 20(2): 229-235. [*Pedicularis kansuensis* among species found in the seed bank.]

Liu ChiaYu; Lin,YingChih, Deng JengShyan, Liao JungChun, Peng WenHuang and Huang GuanJhong. 2012. Antioxidant, anti-inflammatory, and antiproliferative activities of *Taxillus sutchuenensis*. American Journal of Chinese Medicine 40(2): 335-348. [Confirming that *T. sutchuenensis*, a popular folk medicine in Taiwan, is a potent antioxidant medicinal plant, attributable to its polyphenolic compounds.]

Liu XiaoJin, Xu DaPing, Yang ZengJiang and Zhang NingNan. 2012. (Study on methods for rapid determination of seed viability of *Santalum album*.) (in Chinese) Journal of Nanjing Forestry University (Natural Sciences Edition) 36(4): 67-70. [Finding the TTC method superior to the indigo dying or I-KI reaction methods.]

López-Ortega, M. and Khalaim, A.I. 2012. First record of *Calliephialtes sittenfeldae* associated with the tephritid fruit fly *Anastrepha spatulata* in Mexico. Journal of Insect Science (Madison), 2012, 12, 34. [Collected from fruits of *Schoepfia schreberi* (Olacaceae).]

McLay, T.G.B., Tate, J.A. and Symonds, V.V. 2012. Microsatellite markers for the endangered root holoparasite *Dactylanthus taylorii* (Balanophoraceae) from 454 pyrosequencing. American Journal of Botany 99(8): e323-e325.

Maithri Shekar, Shirin Shetty, George Lekha and Karthik Mohan. 2012. Evaluation of *in vitro* antioxidant property and radio protective effect of the constituent medicinal plants of a Herba Sunscreen Formulations. International Journal of Pharmaceutical Frontier Research (IJPFR) 2(2): 90-96. [Extract of *Santalum album* did not show useful antioxidant activity for protection against skin damage from the sun.]

Makoi, J.H.J.R. and Ndakidemi, P.A. 2012. Allelopathy as protectant, defence and growth stimulants in legume cereal mixed culture systems. New Zealand Journal of Crop and Horticultural Science 40(3): 161-186. [Some reference to *Striga* (*gesnerioides*?) but no info in abstract.]

Matata, P.Z., Gama, B.M., Mbwaga, A., Mpanda, M. and Byamungu, D.A. 2011. Effect of *Sesbania sesban* fallows on *Striga* infestation and maize yield in Tabora Region of Western Tanzania. Journal of Soil Science and Environmental Management 2(10): 311-317. [Growing *S. sesban* for 2 years resulted in 88% less *Striga asiatica* in maize in the third year than in plots in which maize had been grown for the first 2 years without fertilizer. With fertilizer *Striga* numbers in the third year were halved. Yields in third year were ca. 1400 kg/ha after *S. sesban*, 1200 kg/ha with fertilizer and 400 kg/ha without. Economics not discussed.]

Matiwade, P.S., Kajjidoni, S.T. and Hundekar, A.R. 2010. *Orobanche* management in bidi tobacco through trap crops in Northern Karnataka, India. Plant Archives 10(1): 479-481. [Maize and sorghum were the most effective of a range of trap crops for control of *O. cernua* tested over a 3 year period in the field.]

Mayzlish-Gati, E. and 14 others. 2012. Strigolactones are involved in root response to low phosphate conditions in *Arabidopsis*. Plant Physiology, 2012, 160, 3, 1329-1341. [Confirming that the response in root architecture of plants to low Pi (inorganic phosphate) is regulated by strigolactones. This regulation requires MAX2 and correlates with the induction of TIR1, the auxin receptor]

Medak, J. 2011. (Forests of sweet chestnut with odorous pig-salad (*Aposeri foetidae-Castanetum sativae* ass. nova) in Croatia.) (in Croatian) Šumarski List 135(Special Issue): 5-24. [Listing many associated species including *Melampyrun pratense*.]

Mellor, K.E., Hoffman, A.M. and Timko, M.P. 2012. Use of ex vitro composite plants to study the interaction of cowpea (*Vigna unguiculata* L.) with the root parasitic angiosperm *Striga gesnerioides*. Plant Methods 8(1): 22.

(http://www.plantmethods.com/content/8/1/22) [Describing an optimized protocol for the rapid generation of transformed hairy roots on ex vitro composite plants of cowpea using *Agrobacterium rhizogenes*, offering a rapid alternative to methods requiring stable transformation and whole plant regeneration for studying gene expression in resistance or susceptibility responses to *S. gesnerioides*.]

Micheli, F., Daniela, P., Oliveira, P.L., Sávio, N.D. and Elaine, E. 2012. Inhibition of *Ptychopetalum olacoides* on acetylcholinesterase isoforms in brain of mice. Chinese Herbal Medicines 4(3): 189-194.

Mignouna, D.B., Manyong, V.M., Mutabazi, K.D.S., Senkondo, E.M. and Oleke, J.M. 2012. Assessing the technical efficiency of maize producers with Imazapyr-Resistant Maize for *Striga* control in Western Kenya. Journal of Development and Agricultural Economics 4(8): 245-251. [A socio-economic study aimed at understanding the limitations and potential relating to introduction of this new technique.]

Miladinovic´, D., Cantamutto, M., Vasin, J., Dedic´, B., Alvarez, D. and Poverene, M. 2012. Exploring environmental determinants of the geographic distribution of broomrape (*Orobanche cumana* Wallr.). Helia 35(56): 79-87. [Exploring differences in conditions between Serbia and Argentina which might explain the lack of *O. cumana* infestation in the latter. Concluding that warmer winter temperatures, higher P, higher organic matter and higher pH could possibly be contributory.]

Min Shen, Chang-Qin Zhang, Yong-Peng Ma, Welti, S., Moreau, P.A. and Selosse, M.A. 2012. Mycorrhizal features and fungal partners of four mycoheterotrophic Monotropoideae (Ericaceae) species from Yunnan, China. Symbiosis 57(1): 1-13. [Identifying the fungal associates of *Monotropa uniflora*, *Hypopitys monotropa*, *Monotropastrum humile* and *Monotropastrum sciaphilum*, and challenging the idea that these are host-spedcific.]

Misra, B.B. and Dey, S. 2012. Comparative phytochemical analysis and antibacterial efficacy of *in vitro* and *in vivo* extracts from East Indian sandalwood tree (*Santalum album* L.). Letters in Applied Microbiology 55(6): 476-486. [Comparing the anti-bacterial activity of 5 different extracts of *S. album*.]

Mohammad, N., Mahesh, S., Kumar, P. and Ansari, S.A. 2012. Genotyping of *Santalum album* L. accessions through cross-species transferability of SSR markers of *Santalum austrocaledonicum* and *Santalum insulare*. Sandalwood Research Newsletter 27: 1-5. [‘Application of co-dominant transferable SSR markers confers noteworthy advantage for further investigation of S. album genome for diverse aspects.’]

Mound, L.A. and Tree, D.J. 2011. New records and four new species of Australian Thripidae (Thysanoptera) emphasise faunal relationships between northern Australia and Asia. Zootaxa 2764: 35. [The thrips *Rhamphothrips pandens* recorded from the ‘leaves’(?) of a *Cassytha* sp.]

Morawetz, J.J. 2007. Systematics of *Alectra* (Orobanchaceae) and phylogenetic relationships among the tropical clade of Orobanchaceae. Doctor of Philosophy, Ohio State University, Evolution, Ecology, and Organismal Biology. 312 pp. (http://etd.ohiolink.edu/send-pdf.cgi/Morawetz%20Jeffery%20J.pdf?osu1195069917) [[This molecular phylogenetic study of *Alectra* usinmg nuclear and chloroplast DNA sequences showed the genus is mostly monophyletic, with the apparent exceptions of *A. alba* and *A. fruticosa*. A key is provided that recognises 11 species. *A. picta* is treated as a synonym for *A. vogelii*.]

*Morawetz, J.J. 2012. *Aureolaria* (Orobanchaceae). Flora of North America. (published online 8 March 2012) (http://floranorthamerica.org/files/Aureolaria03n%20SI.CH%20for%20Prov%20Pub.pdf) [Providing a key to the 8 species occurring in N. America and Mexico.]

Morawetz, J.J. and Randle, C.P. 2010. The status of *Harveya alba* (Orobanchaceae). Kew Bulletin 65(3): 495-496. [Confirming the renaming of *Alectra alba* as *Harveya alba*, synonymous with *H. wysockiana*.]

Morawetz, J.J., Randle, C.P. and Wolfe, A.D. 2010. Phylogenetic relationships among the tropical clade of Orobanchaceae. Taxon 59(2): 416-426. [The tropical clade was strongly supported as monophyletic in all analyses, and four main clades were recovered. The genus *Nesogenes* is included within the tropical clade of Orobanchaceae rather than in the separate family Nesogenaceae.]

Morawetz, J.J. and Wolfe., A.D. 2011. Taxonomic revision of the *Alectra sessiliflora* complex (Orobanchaceae). Systematic Botany 36(1): 141-152. [Concluding that the variously recognized varieties of *A. sessiliflora* are part of a continuum and recommending that the species be recognized without infraspecific taxa.]

Morawetz, J.J., Wolfe, A.D. 2009. Assessing the monophyly of *Alectra* and its relationship to *Melasma* (Orobanchaceae). In: Zuloaga, F. (ed.) Systematic Botany 34 (3): 561-569. [Discussing that the status of the Madagascan *Alectra fruticosa* is unresolved, though with some affinities to *Melasma.*]

Morgan, J. K., Zhou, L. J.; Li, W. B.; Shatters, R. G.; Keremane, M.; Duan, Y. P.; Improved real-time PCR detection of '*Candidatus* Liberibacter asiaticus' from citrus and psyllid hosts by targeting the intragenic tandem-repeats of its prophage genes. Elsevier, Amsterdam, Netherlands, Molecular and Cellular Probes, 2012, 26, 2, 90-98. [

Moyo, D., Erlwanger, K.H. and Chivandi, E. 2012. Effect of graded dietary substitution of soyabean meal with large sour plum (*Ximenia caffra*) seed meal on erythrocyte osmotic fragility and the packed cell volume

of growing male Sprague Dawley rats. International Journal of Agriculture and Biology 14(4): 671-674. [Showing that *X. caffra* could completely replace soyabean meal in the diet of rats without ill-effect.]

Muhammad Remy Othman, Leong SowTein, Baki Bakar and Khalijah Awang. 2011. *Cuscuta campestris* Yuncker an Invasive Weed in Northern States. Proceeding of 10th Universiti Malaysia Terengganu International Symposium 2011 Conference on Life Science: 364-375. [Recording *C. campestris* on 69 hosts in northern Malaysia, the main ones being *Mikania micrantha* and *Asystasia gangetica*.]

Muhammad Remy Othman, Leong SowTein, Baki Bakar, Khalijah Awang and Mohamad Suffian, M.A. 2012. Allelopathic potentials of *Cuscuta campestris* Yuncker extracts on germination and growth of radish (*Raphanus sativus* L.) and lettuce (*Lactuca sativa* L.). Journal of Agricultural Science (Toronto) 4(9): 57-63. [Confirming some toxic effects from extracts of *C. campestris*.]

Munshi Younis, Huma Rafique, Zahoor Ahmad and Sabia Rasool. 2012. Management of postmenopausal syndrome with a herbal extract: a pilot study. Australian Journal of Herbal Medicine 24(2): 62-64. [A mix of *Nepeta cataria* and *Cuscuta reflexa* decreased the symptoms of menopause significantly.]

Munteanu, M.F., Gligor, R., Crîsnic, I., Costache, C.A. and Colosi, I.A. 2012. Antimicrobial activity of *Melampyrum cristatum*, *Melampyrum bihariense* and *Melampyrum arvense* tinctures. African Journal of Pharmacy and Pharmacology 6(40): 2808-2812. [All 3 species inhibited the growth of *Staphylococcus aureus* and *Escherichia coli*. *M. cristatum* and *M. arvense* inhibited the development of *Pseudomonas aeruginosa*. *M. cristatum* showed the best antifungal action, inhibiting the development of *Candida albicans* up to a dilution of 1/8.]

Naseri, B., Karami, F., Naderi, F. and Salamat, E. 2011. An evaluation of showy mistletoe (*Loranthus europaeus*) infection of oak forests in Meyan tang, Ilam province. Iranian Journal of Forest and Range Protection Research 8(2): 178-182. [Noting that *L. eurpaeus* can be highly damaging to unspecifiedf *Quercus* spp.]

Natalis, L.C. and Wesselingh, R.A. 2012. Post-pollination barriers and their role in asymmetric hybridization in *Rhinanthus* (Orobanchaceae). American Journal of Botany 99(11): 1847-1856. [In a *R. angustifolius* background, bumblebees preferred *R. angustifolius*, but visited hybrids more often than *R. minor*. In contrast, visitation rates were similar on a *R. minor* background. Results suggest that hybridization rates in *Rhinanthus* remain low because of several leaky barriers that make *R. minor* the maternal parent of most F_1 offspring.]

Natalis, L.C. and Wesselingh, R.A. 2012. Shared pollinators and pollen transfer dynamics in two hybridizing species, *Rhinanthus minor* and *R. angustifolius*. Oecologia 170(3): 709. [Discussing the degree to which bumble bees visit both these species and successfully cause cross pollination.]

Ndagurwa, H.G.T., Mundy, P.J., Dube, J.S. and Mlambo, D. 2012. Patterns of mistletoe infection in four *Acacia* species in a semi-arid southern African savanna. Journal of Tropical Ecology 28(5): 523-526. [*Acacia gerrardii, A. karroo, A. nilotica* and *A. robusta* were variously infested by *Erianthemum ngamicum, Plicosepalus kalachariensis* and *Viscum verrucosum*.]

Ndukwe, N.A., Okiei, W.O. and Alo, B.I. 2012. Correlates of the yield of chemical pulp, lignin and the extractive materials of tropical hardwoods. African Journal of Agricultural Research 7(40): 5518-5524. [Including data on itako (*Strombosia pustulata*).]

Niblett, C.L. and Bailey, A.M. 2012. Potential applications of gene silencing or RNA interference (RNAi) to control disease and insect pests of date palm. In: Al-Khayri, J.M., Johnson, D.V., Al-Khalifah, N.S. and Jain, S.M. (eds) Emirates Journal of Food and Agriculture 24(5): 462-469. [Reviewing the topic of gene silencing or RNA interference (RNAi), and its potential uses including the control of *Orobanche* and *Striga* spp.]

Noubissié, J.B.T., Fohouo, F.N.T. and Tchako, S.L.T. 2012. Role of Lepidoptera as pollinators on the breeding systems of *Striga hermonthica* (Del.) Benth under the Guinea savannah zone conditions. Annals of Biological Research 3(6): 2821-2828. [In Cameroon, insect visitors to *S. hermonthica included 4* Lepidoptera, 1 Hymenoptera, 1 Hemiptera and 1 Coleoptera. The Lepidoptera, a Hesperiidae, *Papilio demedocus* and a *Heterocera* were the main foragers with 64%, 28 % and 3% of visits (impact of each pollinator on fruit set) respectively.]

Novello, C.R., Marques, L.C., Miyazaki, C.R., Milaneze-Gutierre, M.A., Carneiro-Torres, D.S., Sarragiotto, M.H. and de Mello, J.C.P. 2012. Morphoanatomy and pharmacognostic study of the wood of *Croton echioides*, the Northeastern Marapuama. Revista Brasileira de Farmacognosia 22(5): 946-956. [Referring to *C. echioides* as an alternative source of aphrodisiac and tonic properties in place of *Ptychopetalum olacoides* (Olacaceae).]

Ogbonnia, S.O., Anyika, E.N., Mbaka, G.O., Utah, P., Ugwu, D., Nwakakwa, N. and Ota, D.A. 2012. Antihyperglycaemic and antihyperlipidaemic effects of aqueous ethanol extract of *Tapinanthus globiferus* leaves and *Treculia africana* root bark and their mixture on alloxan diabetic rats. Agriculture and Biology Journal of North America 3(6): 237-246. [Results did not support the use of mixture of a mixture of *T. globiferus Treculia africana* in the management of diabetes and heart diseases in Nigeria.]

*Ogechukwu, O.E., Ogoamaka, O.P., Kawamura, A., Hassan, A., Debbab, A. Okechukwu, E.C., Sylvester, N.C., Ngozi, N. and Peter, P. 2012. Three - (-) catechin-

O-rhamnosides from the Eastern Nigeria mistletoe with potent immunostimulatory and antioxidant activities. Biomolecules Journal of Biomolecular Research and Therapeutics 1(102) (http://omicsgroup.org/journals/BOM/BOM-1-102.php?aid=5016) [Demonstrating high anti-oxidant activity in three compounds: (-) catechin- 7-O-rhamnoside (1), (-) catechin-3-O- rhamnoside (2) and a 4′-methoxy-7-O-rhamnoside (3) isolated from *L. micranthus* (= *Ileostylus micranthus*) parasitising *Kola acuminate*.]

Olufajo, O.O. 2012. Agronomic performance of improved cowpea varieties under natural infestation with *Alectra vogelii* (Benth.) in the northern Guinea savannah of Nigeria. Agricultura Tropica et Subtropica 45(2): 66-71. [Among 20 varieties IT95K-1072-57 and IT97K-499-35 supported little *A. vogelii* and were high yielding in grain and fodder. IT95K-1090-12 and IT97K-818-35 were immune but very low yielding.]

Omeje, E.O., Osadebe, P.O., Esimone, C.O., Nworu, C.S., Kawamura, A. and Proksch, P. 2012. Three hydroxylated lupeol-based triterpenoid esters isolated from the Eastern Nigeria mistletoe parasitic on *Kola acuminata*. Natural Product Research 26(19): 1775-1781. [Compounds identified which may contribute to the bio-activity of *L. micranthus* (= *Ileostylus micranthus*).]

Othira, J.O., Omolo, J.O., Wachira, F.N. and Onek, L.A. 2012. Effectiveness of arbuscular mycorrhizal fungi in protection of maize (*Zea mays* L.) against witchweed (*Striga hermonthica* Del Benth) infestation. Journal of Agricultural Biotechnology and Sustainable Development 4(3): 37-44. [A greenhouse experiment showed that AMF inhibited germination and reduced growth of *Striga hermonthica* while enhancing maize host growth and development. *Glomus etunicatum*, was more effective than *Scutellospora fulgida* and *Gigaspora margarita*.]

Ouedraogo, J.T., Ouedraogo, M., Gowda, B.S. and Timko, M.P. 2012. Development of sequence characterized amplified region (SCAR) markers linked to race-specific resistance to *Striga gesnerioides* in cowpea (*Vigna unguiculata* L.). African Journal of Biotechnology 11(62): 12555-12562. [Identifying SCAR markers of potential value in cowpea selection for resistance to *S. gesnerioides*.]

Páez, V. de los A., Andrada, A.R., Lozzia, M.E. and Toranzo, M. 2011. Meiotic studies in four species of the genus *Cuscuta*, subgenus *Grammica* (Cuscutaceae). (in Spanish) Lilloa 48(1): 83-90. [Studies on *Cuscuta* spp. of Northwest Argentina *C. globiflora*, *C. parodiana*, *C. cristata* and *C. grandiflora* (subgenus *Grammica*,) show chromosomes are monocentric with regular meiotic behaviour. Three species are diploid one is tetraploid, with n=14, 15 or 28.]

Page, T., Tate, H., Bunt, C., Potrawiak, A. and Berry, A. 2012. Opportunities for the smallholder sandalwood industry in Vanuatu. ACIAR Technical Reports Series No. 79: 67 pp. [This report discusses the current rate and location of new plantings of sandalwood (*Santalum* sp.) in Vanuatu, and the silvicultural requirements for growing sandalwood.]

Pallavi Saxena, Alka Arora, Samiran Dey, Yogendra Malhotra, Nagarajan, K. and Singh, P.K. 2011. Review on different methods to assess the antioxidant activity of some common plants of Indian traditional medicine. Journal of Drug Delivery and Therapeutics 11(1): 36-39. [Comparing a range of techniques for measuring antioxidant activities in plant extracts, including *Santalaum album*, and suggesting ideally using more than one technique.]

Panetta, F.D. 2012. Evaluating the performance of weed containment programmes. Diversity and Distributions 18(10): 1024-1032. [Referring to the near absolute containment programme for *Orobanche ramosa* in Australia.]

Parmar, R.R., Joshi, A.A. and Patel, B.H. 2012. Phytochemical investigation of *Dendrophthoe trigona* (Wt. and Arn.) Danser. Current Pharma Research 2(3): 580-583. [Identifying significant amounts of quercetin and epicatechin in *D. trigona*, an important medicinal plant in India.]

Patel, D.K., Kumar, R., Prasad, S.K. and Hemalatha, S. 2011. Pharmacologically screened aphrodisiac plant - a review of current scientific literature. Asian Pacific Journal of Tropical Biomedicine 1(Suppl.1): S131-S138. [Reviewing information on plants used to treat sexual dysfunction or to improve sexual behavior and satisfaction in humans and animals, including *Ptychopetalum olacoides* (Olacaceae).]

Patrick-Iwuanyanwu, K.C., Chinaka, D.E. and Gboelo, B.B. 2012. Evaluation of acute and subchronic toxicities of Class Bitters®: a polyherbal formula in male wistar albino rats. Pharmacologia 3(12): 12, 707-712. [Concluding that ClassBitters, based on a mix of 6 species including *Thonningia sanguiinea* is toxic to rates.]

Peregrym, O.M. 2012. Morphological features of the leaves of *Euphrasia taurica* Ganesch. (Orobanchaceae). Modern Phytomorphology 2: 63-65. [Showing that tooth pattern, type of ultrastructure and type of indumentum of the leaves are diagnostic for *E. taurica*.]

Piazzon, M., Larrinaga, A.R., Rodríguez-Pérez, J., Latorre, L., Navarro, L., Santamaría, L., Hansen, D.M. and Traveset, A. 2012. Seed dispersal by lizards on a continental-shelf island: predicting interspecific variation in seed rain based on plant distribution and lizard movement patterns. Journal of Biogeography 39(11): 1984-1995. [Studying patterns of dispersal by lizards of the seeds of several species including *Osyris alba* on Majorca.]

Piednoël, M., Aberer, A.J., Schneeweiss, G.M., Macas, J., Novak, P., Gundlach, H., Temsch, E.M. and Renner, S.S. 2012. Next-generation sequencing reveals the impact of repetitive DNA across phylogenetically closely related genomes of Orobanchaceae. Molecular Biology and Evolution 29(11): 3601-3611. [Studies on *Schwalbea americana*, and seven *Orobanche* (and *Phelipanche*) spp. showed higher proportions of repetitive DNA sequences in the latter. *Orobanche* spp. had smaller genomes but higher proportions of repetitive DNA than those in *Phelipanche*.]

Pricop, S.M. and Cristea, S. 2012. The attack of the *Orobanche cumana* Wallr. and it's influence on a differential sunflower host assortment under Dobrogea conditions.
Research Journal of Agricultural Science 44(2): 78-84. [Noting the development of more virulent races of *O. cumana* in Romania and the good resistance of hybrid PR64E71.]

Prider, J., Correll, R. and Warren, P. 2012. A model for risk-based assessment of *Phelipanche mutelii* (branched broomrape) eradication in fields. Weed Research 52(6): 526-534. [A new model predicts that the current infestation of *P. mutelii* (= *Orobanche ramosa* ssp. *mutelii*) is unlikely to be eradicated in less than 38 years and may take 62 years.]

Rahman, M.M., Chowdhury, M.A.U., Uddin, M.E., Islam, A.M.T. and Hossain, M.A. 2012. *Macrosolen cochinchinensis* (Lour.): anti-nociceptive and antioxidant activity. Asian Pacific Journal of Tropical Biomedicine 2012(Suppl. 1): S203-S207. [Confirming excellent anti-nociceptive activities and moderate antioxidant properties in *M. cochinchinensis*.]

Ramírez, M.M., Ornelas, J.F. 2012. Cross-infection experiments of *Psittacanthus schiedeanus*: effects of host provenance, gut passage, and host fate on mistletoe seedling survival. Plant Disease 96(6): 780-787. [The success rate of *P. schiedeanus* establishment on 4 hosts *Acacia pennatula, Liquidambar styraciflua, Platanus mexicana*, and *Quercus germa*, depended largely (but not simply!) on the host from which the seed came.]

Ray, B.R. and Dasgupta, M.K. 2012. Sugarcane genetic resistance against holoparasitic angiosperm *Aeginetia pedunculata* (Orobanchaceae). Indian Phytopathology 65(2): 147-150. [Evaluation of 28 sugarcane genotypes showed small differences in susceptibility to *A. pedunculata*. Crosses involving NCo 310 (resistant to *A. indica*) resulted in genotypes susceptible to *A. pedunculata*.]

Rehker, J., Lachnit, M. and Kaldenhoff, R. 2012. Molecular convergence of the parasitic plant species *Cuscuta reflexa* and *Phelipanche aegyptiaca*. Planta 236(2): 557-566. [Showing by validation of transcriptome sequencing data that the *Phelipanche* orthologue of a haustorium-specific *Cuscuta* gene, which codes for a cysteine proteinase, was activated in the early stages of *Phelipanche* invasion.]

Rios, M.Y. and nine others. 2012 Vasorelaxant activity of some structurally related triterpenic acids from *Phoradendron reichenbachianum* (Viscaceae) mainly by NO production: *ex vivo* and *in silico* studies. Fitoterapia 83(6): 1023-1029. [All compounds showed significant relaxant effect on endothelium-intact vessels in a concentration-dependent manner. Ursolic, moronic and betulinic acids were the most potent.]

Robson, K. 2012. Variation in Sandalwood (*Santalum album* L.) seed diameter and its effect on nursery and field growth. Sandalwood Research Newsletter 27: 6-8. [Showing a non-significant but consistent advantage of larger seeds in germination and growth rate.]

Roobeek, K. and Spruijt, T. 2012. *Tricholoma suphureum* as fungal partner of *Monotropa hypopitys* in the dunes of Kennemerland (prov. North-Holland). Coolia 55(4): 171-174.

Rosa, A., Rescigno, A., Piras, A., Atzeri, A,, Scano, P., Porcedda, S., Zucca, P. and Dessì, M.A. 2012. Chemical composition and effect on intestinal Caco-2 cell viability and lipid profile of fixed oil from *Cynomorium coccineum* L. Food and Chemical Toxicology 50(10): 3799-3807. [‘The results showed remarkable biological activity of Maltese mushroom oil, and qualify it as a potential resource for food/pharmaceutical applications.’]

Roura-Pascual, N., Brotons, L., García, D., Zamora, R. and de Càceres, M. 2012. Local and landscape-scale biotic correlates of mistletoe distribution in Mediterraean pine forests. Forest Systems 21(2): 179-188. [The presence of *Viscum album* in stands of *Pinus halepensis* is determined by multiple factors operating at different spatial scales, with the availability of orchards of *Olea europaea* in the surroundings playing a relevant role.]

Rusinamhodzi, L., Corbeels, M., Nyamangara, J. and Giller, K.E. 2012. Maize-grain legume intercropping is an attractive option for ecological intensification that reduces climatic risk for smallholder farmers in central Mozambique. Field Crops Research 136:12-22. [Within-row pigeon pea was more effective than N and P in increasing yield and suppressing *Striga asiatica* in maize.]

Rzedowski, J. and Calderón de Rzedowski, G. 2010. (Main hosts and some other ecological data Viscaceae species in the state of Queretaro.) (in Spanish) Flora del Bajío y de Regiones Adyacentes: Fasc compl 26, 5 pp. [A study in Mexico. No detail in abstract but author’s email address available.]

Runo, S., Macharia, S., Alakonya, A., Machuka, J., Sinha, N. and Scholes, J. 2012. *Striga* parasitizes transgenic hairy roots of *Zea mays* and provides a tool for studying plant-plant interactions. Plant Methods 8(20) (http://www.plantmethods.com/content/8/1/20) [*Agrobacterium rhizogenes* strain K599 carrying a

reporter gene construct, Green Fluorescent Protein (GFP), was used to generate transgenic composite maize plants that were parasitised normally by *Striga hermonthica*. The technique will help to advance understanding of gene function in parasitic plant-host interactions.]

Ruyter-Spira, C. and Bouwmeester, H. 2012. Strigolactones affect development in primitive plants. The missing link between plants and arbuscular mycorrhizal fungi? New Phytologist 195(4): 730-733. [A commentary to the paper by Delaux et al, mentioned above, that showed that freshwater green algae belonging to the Charales already produce and exude strigolactones. The commentary concludes that if strigolactone signaling evolved first when plants started to colonize drier habitats, strigolactone signaling in AM fungi must have evolved independently. It will be of interest to see if this is indeed the case and what then the differences and/or similarities are between plants and AM fungi in strigolactone downstream signalling.]

Ruyter-Spira, C. Al-Babili, S., Van der Krol, S. and Bouwmeester, H. 2013. The biology of strigolactones. Trends in Plant Science, in press. (http://www.cell.com/trends/plant-science/abstract/S1360-1385(12)00230-0) [Review of the new knowledge on the strigolactone biosynthetic pathway, transport and hormonal roles in plant development and adaptation.]

Saji Kuriakose and Joe, H. 2012. Qualitative and quantitative analysis in sandalwood oils using near infrared spectroscopy combined with chemometric techniques. Food Chemistry 135(1): 213-218.

Sarangzai, A.M., Moinuddin Ahmed, Alia Ahmed, Lubna Tareen and Jan, S.U. 2012. The ecology and dynamics of *Juniperus excelsa* forest in Balochistan-Pakistan. Pakistan Journal of Botany 44(5): 1617-1625. [Noting mistletoe, presumably *Arceuthobium oxycedri*, among factors damaging juniper in Balochistan.]

Semercï, A., Kaya, Y., Sahïn, I. and Cïtak, N. 2010.Determination of the performances and adoption levels of sunflower cultivars based on resistance to broomrape in farm conditions in Thrace region. Helia 33(53): 69-76. [Comparing the performance of sunflower varieties resistant to *Orobanche cumana* and those resistant to imidazolinone herbicide in Thrace, Turkey and concluding that highest and most economical yields are obtained with genetic resistance to the parasite.] (**NB** Entry repeated from Haustorium 61 with inclusion of full title and source – Ed.)

Semwal, B.C., Agrawal, K.K., Singh, K.,Tandon, S. and Sharrma, S. 2011. Alopecia: switch to herbal medicine., Journal of Pharmaceutical Research and Opinion 1(4): 101-104. [Noting the traditional use of *Cucuta* extracts in the treatment of alopecia in India.]

Seto, Y., Kameoka, H., Yamaguchi, S. and Kyozuka, J. 2012. Recent advances in strigolactone research: chemical and biological aspects. Plant and Cell Physiology 53(11): 1843-1853. [Another review on the strigolactones, providing an overview of recent topics and new knowledge on their biosynthetic pathway and hormonal roles in plant development and adaptation.]

Simion, D., Gaidau, C., Paun, G., Koleva, M. and Cupara, S. 2012. Modern techniques for concentration of active principles from plant extracts, based on membranary technologies. Revista de Pielărie Încălţăminte 12(3): 223-230. [Relating to the separation and concentration of the active principles from the *Viscum album*.]

Singh, K.S., Azam, M.F., Gurjar, M.S. and Shahid Ali. 2012. Effect of plant extracts against *Meloidogyne incognita* on chick pea (*Cicer arietinum* L.). Annals of Plant Protection Sciences 20(2): 449-451. [*Cuscuta reflexa* not among the extracts showing useful activity.]

Sousa, A.L., Sales, Q., Braz Filho, R. and de Oliveira, R.R. 2012. Lignans and flavonoids isolated from *Cuscuta racemosa* Mart. & Humb (Convolvulaceae) by droplet counter-current chromatography. Journal of Liquid Chromatography & Related Technologies 35(16): 2294-2303.

Stanton, S. and Hadley, K.S. 2010. Influence of western dwarf mistletoe (*Arceuthobium campylopodum* Engelm.) on surface fuels and snag abundance in mature ponderosa pine and mixed conifer stands in central Oregon. Natural Areas Journal 30(3): 261-270. [*A. campylopodum*) infestation had a relatively small effect on fuel loads in mature mixed-conifer forest in Crater Lake National Park and unmanaged ponderosa pine (*Pinus ponderosa*) stands in Lave Cast Forest.]

Stoeckle, M.Y., Gamble, C.C., Kirpekar, R., Young, G., Ahmed, S. and Little, D.P. 2011. Commercial teas highlight plant DNA barcode identification successes and obstacles. Scientific Reports 1(42): srep00042. [Concerning the identification of components of herbal teas, which can include *Odontites vernus*.]

Strüh, C.M., Jäger, S.; Schempp, C.M., Scheffler, A. and Martin, S.F. 2012. A novel triterpene extract from mistletoe induces rapid apoptosis in murine B16.F10 melanoma cells. Phytotherapy Research 26(10): 1507-1512. [Suggesting that non-water-soluble triterpene is a useful anti-cancer component of *V. album* which can be solubilised by 2-hydroxypropyl-β-cyclodextrin without the need for potentially toxic solvents.]

Su HueiJiun and Hu JerMing. 2012. Rate heterogeneity in six protein-coding genes from the holoparasite *Balanophora* (Balanophoraceae) and other taxa of Santalales. Annals of Botany 110(6): 1137-1147. [Concluding that the mechanism or mechanisms responsible for rapid sequence evolution and concomitant rate acceleration for 18 S rDNA and *matR* are currently not well understood and require further study in *Balanophora* and other holoparasites.]

Suetsugu, K., Takeuchi, Y., Futai, K. and Kato, M. 2012. Host selectivity, haustorial anatomy and impact of the

invasive parasite *Parentucellia viscosa* on floodplain vegetative communities in Japan. Botanical Journal of the Linnean Society 170(1): 69-78. [*P. viscosa* has recently become established in Japan and threatens to become invasive. It favours Poaceae and Fabaceae and reduces their vigour relative to other vegetation, hence changing native flora.]

Sutha, S., Devi, V.K. and Mohan, V.R. 2011. GC-MS determination of bioactive components of *Erythropalum scandens* Bl., Bijdr. Journal of Applied Pharmaceutical Science 1(9): 170-173. [Describing some components of *E. scandens* (Erythropalacerae/Olacaceae).]

Tanase, M., Gheorghe, M., Timar, A., Stanciu, M. and Antonie, I. 2012. The impact of dodder on the biodiversity of prato-ecosystems. Lucrări Ştiinţifice, Universitatea de Ştiinţe Agricole Şi Medicină Veterinară a Banatului, Timisoara, Seria I, Management Agricol 14(2): 337-342. [Reviewing the status of *Cuscuta* spp. and their hosts in Romania – including *Cuscuta epithymum, C. monogyna, C. trifolii, C. europea* and *C. lupuliformi* – and discussing the conflicting aims of control and conservation.]

Tănase, M. and Sand, C. 2012. Aspects regarding the physiology of cuscuta (Cuscuta L. Convolvulaceae). Journal of Horticulture, Forestry and Biotechnology 16(1): 212-215. [Confirming photosynthesis in tissues of a *Cuscuta* sp. (not defined – probably *C. campestris* – see following) and showing movement of assimilate only in an upward, acropetal direction.]

Tanase, M., Sand, C., Gheorghe, M., Moise, C., Stanciu, M. and Antonie, I. 2012. Research on the spreading of cuscuta in South-East Transylvania - Romania. Journal of Horticulture, Forestry and Biotechnology 16(1): 216-219. [Noting that the commonest species of *Cuscuta* in Romania are *C. campestris*, C. *epithymum* and *C. trifolii*.]

Teimoury, M., Karimmojeni, H., Ehtemam, M.H. and Mehri, H.R. 2012. First report of *Orobanche aegyptiaca* parasitism on sesame in Iran. Plant Disease 96(8): 1232. [*O. aegyptiaca* occurred in about 5% of the total sesame fields in northeastern Iran and caused 30-40% estimated yield losses.]

Teschke, R., Wolff, A., Frenzel, C., Schulze, J. and Eickhoff, A. 2012. Herbal hepatotoxicity: a tabular compilation of reported cases. Liver International 32(10): 1543-1556. [A wide-ranging review of 168 publications, including reports on *Viscum album*.]

Thakre, M.T. and Srinivasu, T. 2012. New plant species records to flora of Nagpur district. MFP News 22(3): 6-10. [*Cuscuta campestris* newly recorded in the Nagpur district of Maharashtra.]

Thomas, B.T., Effedua, H.I., Agu, G.C., Akinduti, P.A., Ejilude, O., Efuntoye, M.O., Ayodele, A.E. and Oluwadun, A. 2012. Extrinsic factors influencing antibacterial activities of *Tapinanthus bangwensis* against diarrheal causing organisms. International Journal of Microbiological Research (IJMR) 3(1): 33-37. [Some anti-bacterial activity confirmed for some extracts of *T. bangwensis*, but depending on extraction methods and solvents used. In Nigeria.]

Ticktin, T., Rengaian Ganesan, Mallegowda Paramesha and Siddappa Setty. 2012. Disentangling the effects of multiple anthropogenic drivers on the decline of two tropical dry forest trees. Journal of Applied Ecology 49(4): 774-784. [*Phyllanthus emblica* and *P. indofischeri* are important wild trees which have declined by 84% in the past 10 years, it is thought largely due to infestation by *Lantana camara* and the mistletoe *Taxillus tomentosus*.]

Trešticˊ, T., Mujezinovicˊ, O., Čabaravdicˊ, A and; Veselinovicˊ, T. 2012. (Presence of mistletoe (*Viscum album* L.) on urban trees of Sarajevo.) (in Serbo-Croatian) Radovi Šumarskog Fakulteta Univerziteta u Sarajevu 42(12): 11-18. [Recording *Viscum album* spp. *album* on 12 species of tree in Sarajevo city. Elsewhere in the country *V. album* spp. *abietis* is important on fir.]

Uchôa, M.A., Caires, C.S., Nicácio, J.N. and Duarte, M. 2012. Frugivory of *Neosilba* species (Diptera: Lonchaeidae) and *Thepytus echelta* (Lepidoptera: Lycaenidae) on *Psittacanthus* (Santalales: Loranthaceae) in ecotonal Cerrado-South Pantanal, Brazil. Florida Entomologist 95(3): 630-640. [A study aimed at finding potential biocontrol agents for *Psittacanthus* spp. mainly *P. acinarius*. The lepidopteran *Thepytus echelta* was identified as having some potential.]

Urban, J., Gebauer, R., Nadezhdina, N. and Čermák, J. 2012. Transpiration and stomatal conductance of mistletoe (*Loranthus europaeus*) and its host plant, downy oak (*Quercus pubescens*). Biologia (Bratislava) 67(5): 917-926. [The seasonal sum of transpired water expressed per leaf area unit was five times higher in the mistletoe than in the oak.]

Vanstraelen, M. and Benková, E. 2012. Hormonal interactions in the regulation of plant development. Annual Review of Cell and Developmental Biology 28: 463-487. [A general review including coverage of strigolactones.]

Verma, R.K., Thakur, A.K. and Rajput, P.S. 2012. Effect of organic amendments and plant growth promoting microbes on *Santalum album* in Central India. Indian Forester 138(8): 742-746. [Reporting generally favourable results from *Azospirillum*, phosphate solubilising bacteria (fluorescent *Pseudomonas* sp.), and *Trichderma viride* in conjunction with organic matter.]

Vijay, C.R., Thriveni, M.C. and Shivamurthy, G.R. 2012. Effect of growth regulators on seed germination and its significance in the management of *Aeginetia indica* L. - a root holoparasite. American Journal of Plant Sciences 3(10): 1490-1494. [Confirming germination stimulation of *A. indica by* GA_3.]

Vít, P.; Lepší, M. and Lepší, P. 2012. There is no diploid apomict among Czech *Sorbus* species: a biosystematic revision of *S. eximia* and discovery of *S. barrandienica*. Preslia 84(1): 71-96. [Incidentally noting association of *Sorbus* spp. with *Melampyrum nemorosum*.]

Wahab, O.M., Ayodele, A.E. and Moody, J.O. 2010. TLC phytochemical screening in some Nigerian Loranthaceae. Journal of Pharmacognosy and Phytotherapy 2(5): 64-70. [A valuable paper endeavouring to clarify the taxonomy of Nigerian mistletoe species used in traditional medicine and usefully confirming that '*Viscum album*' repeatedly referred to in Nigerian publications does NOT occur in Nigeria and that in most cases *Tapinanthus* spp. are involved.]

Wanage, S.S., Mirgal, A.B., Gunaga, R.P., Hanumantha, M., Rane, A.D., Narkhede, S.S. and Bhave, S.G. 2010. Double embryos in *Santalum album* (L.). Journal of Non-Timber Forest Products 17(1): 49-50. [Reporting an apparently rare occurrence.]

Wang WeiWei, Yang HaiLong, He KangNing, Hu XingBo, Wang Hui, Dong Mei and Xie ZengWu 2012. (Niche and ecological response of herb layer in spruce plantation of Qilian Mountains.) (in Chinese) Acta Agrestia Sinica 20(4): 626-630, [*Pedicularis* spp. observed to be among dominant herbs under spruce forest in the Qilian Mountains in China.]

Watson, D.M. and Herring, M. 2012. Mistletoe as a keystone resource: an experimental test. Series B, Biological Sciences 279(1743): 3853-3860. [Complete removal of all mistletoes (mainly *Amyema miquelii* but with occasional *Muellerina eucalyptoides*, *A. pendula* and *A. miraculosa*) from Dry Foothill Forest or Grassy Box Woodland in NSW. Australia, resulted over 3 years in losses of more than a quarter of the woodland-dependent bird species, with the number of resident species decreasing by more than a third. Birds nesting in mistletoe were more affected than those feeding on them.]

Williams, C.J. and Williams, C. 2010. Medicinal plants in Australia. Volume 1: bush pharmacy. Rosenberg Publishing Pty Ltd, Kentihurst, Australia, 328 pp. [Including reference to *Santalum* spp.]

Woch, M.W. 2011. Xerothermic vegetation of fallow lands in western Małopolska. Annales Universitatis Mariae Curie-Skłodowska. Sectio C, Biologia 66(1): 105-120. [Species in xerothermic grassland in Poland included *Thesium linophyllon*.]

Wong ZinHua,Habsah Abdul Kadir, Lee ChoyLong and Goh BeyHing 2012. Neuroprotective properties of *Loranthus parasiticus* aqueous fraction against oxidative stress-induced damage in NG108-15 cells. Journal of Natural Medicines 66(3): 544-551. [Confirming that *L. parasiticus* (=*Scurrula parasitica*) exerts marked neuroprotective activity, with potential therapeutic application for managing oxidative stress-related neurological disorders and supporting the traditional use of *L. parasiticus* in treating brain-related diseases in SW China.].

Wu Yan, Zheng Lei, Cui XuSheng and Guo YuHai .2012. (Influence on biomass and carbohydrate in *Nitraria tangutorum* Bobr. when it parasitized by *Cynomorium songaricum*.) (in Chinese) Journal of China Agricultural University 17(4): 53-57. [Measuring the changes in carbohydrates in host and parasite – in favour of *C. songaricum*.]

*Xi, Z.X., Bradley, R.K., Wurdack, K.J., Wong, K.M., Sugumaran, M., Bomblies, K., Rest, J.S. and Davis, C.C. 2012. Horizontal transfer of expressed genes in a parasitic flowering plant. BMC Genomics 13(227) (http://www.biomedcentral.com/content/pdf/1471-2164-13-227.pdf) [A study of *Rafflesia cantleyi* and its obligate host *Tetrastigma rafflesiae* showed that several dozen actively transcribed genes in the parasite, mostly in the nuclear genome, are likely of host origin, perhaps providing a fitness benefit.]

Xia, B., Tian, C.M., Luo, Y.Q., Liu, L.Y., Cairang, D.Z., Ma, J.H. and Han, F.Z. 2012. The effects of *Arceuthobium sichuanense* infection on needles and current-year shoots of mature and young Qinghai spruce (*Picea crassifolia*) trees. Forest Pathology 42(4): 330-337. [*A. sichuanense* causes serious losses in spruce forests in the Qinghai-Tibet Plateau. Infection resulted in a significant decrease in host needle N concentration and $\delta^{13}C$ values and caused 60% reductions in needle and current-year shoot length.]

Xia Jing and Guo YouHao. 2012. Effects of flowering date and co-flowering species on pollination and reproduction in *Pedicularis gruina*. Biodiversity Science 20(3): 330-336. [Pollination by bumble bees, and reproduction in *P. gruina* was not affected by flowering date but in the presenec of co-flowering *P. densispica* and *P. siphonantha* there was enhanced pollination and reproduction through increased floral resource diversity and larger floral displays.]

Xie ChunYan, Xu XinJun, Liu QunDi, Xie ZhiSheng, Yang Mei, Huang JieYun and Yang DePo. 2012. Isolation and purification of echinacoside and acteoside from *Cistanche tubulosa* (Schrenk) wight by high-speed counter-current chromatography. Journal of Liquid Chromatography & Related Technologies 35(18): 2602-2609.

Yan Chong, Lin Li, Xu DaoHua, Cai Cong, Zheng LaiAn and Wang WeiMei 2012. (Study on the fingerprint of the leaves of *Santalum album* with HPLC.) (in Chinese) Journal of Guangdong Pharmaceutical University 28(3): 287-290.

Yang XinZhou, Yuan JinQuan and Wan JinFu.2012. Cytotoxic phenolic glycosides from *Boschniakia himalaica*. Chemistry of Natural Compounds 48(4): 555-558.

Yang XueLiang, Jiang Shuang, Liu YaHui, Zhang Ping, Xie ShuLi and Wang GuangYi. 2012. Recombinant VAA-I from *Viscum album* induces apoptotic cell death of hepatocellular carcinoma SMMC7721 cells. Molecules 17(10): 11435-11446.

Yang YueQin, Yi XianFeng, Peng Min and Zhou YuBi 2012. Stable carbon and nitrogen isotope signatures of root-holoparasitic *Cynomorium songaricum* and its hosts at the Tibetan plateau and the surrounding Gobi desert in China. Isotopes in Environmental and Health Studies 48(4): 483-493. [$\delta^{13}C$ and $\delta^{15}N$ values of *C. songaricum* closely mirrored the values of its hosts, *Nitraria tangutorum* and *N. sibirica.* Isotopic difference also depend on the different altitudes and habitats of the hosts on the Tibetan plateau and in the Gobi desert.]

Yen HsiuFang, Wang ShengYang, Wu ChinChung, Lin WanYu, Wu TungYing, Chang FangRong and Wang ChinKun.2012. Cytotoxicity, anti-platelet aggregation assay and chemical components analysis of thirty-eight kinds of essential oils. Journal of Food and Drug Analysis 20(2): 478-483. [Confirming cytotoxicity against cancer cells in oil from *Santalum album*.]

Yigezu, A.Y. and Sanders, J.H. 2012. Introducing new agricultural technologies and marketing strategies: a means for increasing income and nutrition of farm households in Ethiopia. African Journal of Food, Agriculture, Nutrition and Development 12(5): 6365-6384. [A study in the Qobo Valley in Central Ethiopia confirmed that an integrated approach, involving the combined technologies of water harvesting, fertilization and *Striga hermonthica*-resistant sorghum varieties, along with inventory credit increases farm household income by 31% and eliminates under-nutrition except in extreme drought years during which public assistance may be still needed.]

Yonli, D., Traoré, H., Sérémé, P., Sankara, P. and Hess, D.E. 2012. Integrated management of *Striga hermonthica* (Del.) Benth. in sorghum using *Fusarium* inoculum, host plant resistance and intercropping. Journal of Applied Biosciences 53: 3734-3741. [Studying combinations of *Striga*-resistant sorghum (F2-20), inoculation with *F. oxysporum* ('Finoculum',34-FO) and intercropping with alternate rows of cowpea (IT-89-KD-245). Various combinations were effective, reducing *S. herrmonthica* infestation by 74-89% and increasing sorghum yield up to 72%.]

Yoshida, S., Kameoka, H., Tempo, M., Akiyama, K., Umehara, M., Yamaguchi, S., Hayashi, H., Kyozuka, J. and Shirasu, K. 2012. The D3 F-box protein is a key component in host strigolactone responses essential for arbuscular mycorrhizal symbiosis. New Phytologist 196(4): 1208-1216. . [This study provides evidence that strigolactones also play a role in facilitating the symbiosis after root colonization. However, only D3 (ortholog of MAX2) is crucial for establishing AM symbiosis in rice, whereas D14 and D14-LIKE are not.]

Zhu YanXia and Guo YuHai. 2012. (Monitor of tamarisk root growth and *Cistanche tubulosa* infection in soil arable layer by WINRHIZO.) (in Chinese) Journal of China Agricultural University 17(3): 43-48. [Using the WINRHIZO method to follow the development of *C. tubulosa* on thre roots of the host tamarisk. Attachment began at 60 days after planting. Also following the content of echinacoside, verbascoside and soluble sugar in the parasite.]

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