The Newsletter of the International Oak Society Spring 2003

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Ozarks Under Siege By Red Oak Borers

Overmaturity, drought stress, and disease in the oak forests of Missouri and Arkansas has led to the dramatic increase in the population of the red oak borer.

istorically, the tree-boring insect known as the red oak borer has kept a low profile, but a recent explosion in its population has scientists scratching their heads.

To explain the increase, researchers from the University of Arkansas Fayetteville, the USDA Forest Service, and other agencies have initiated a study of the red oak borer's life cycle, distribution, and abundance to learn more about its part in the death of tens of thousands of oaks (primarily red oak) in the Ozark Mountains of Arkansas and Missouri.

"In a very short period of time, for unknown reasons, the red oak borer population has reached a remarkably high density," says Fred Stephen, professor of entomology at the University of Arkansas Fayetteville.

In comparison to many forest pest species, information on the red oak borer is somewhat limited. Native to deciduous forests of the Eastern United States, the beetles are brown, an inch in length, and equipped with long antennae, and their larvae are known to attack oak species throughout its range. The beetle is also known to have a two-year life cycle with synchronous emergence of the adults occurring in odd-numbered years. The next resurgence is expected during June and July of 2003.

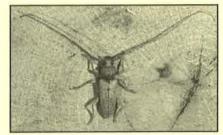
Under normal conditions, oaks can mount a defense that successfully combats the beetle's larvae, thereby keeping both the larvae's numbers and the tree mortality attributed to them low. More recently, however, experts say the dramatic increase in larval density has led to the deaths of thousands of trees.

"In 1974, the literature reported 71 beetle larvae as the highest number attacking a single tree," says Stephen. "Under the current population density, we're seeing up to 3,000 beetle attacks on a single tree."

In addition to the number of trees being killed, the galleries beetle larvae carve through the heartwood of living oaks are also likely to have a significant impact on the value of their lumber. This year, it has been estimated that red oak borers have destroyed \$1 billion worth of timber in Arkansas and Missouri.

Yet, while it looks like the prevalence of oak borers may be what's causing the widespread decline of oaks in Missouri and Arkansas, Stephen and his colleagues believe the increase in the red oak borer population may be the result, and not the cause, of what some are calling an "oak decline event."

Most scientists believe the is death of the oaks is due to a combination of the advanced age and density of the region's oaks, drought stress, disease, and secondary insects that collaborate in making them easier for red oak borers to kill.



Gerald J. Lenhard, Louisiana State University, www.forestryimages.org

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Board Election and By-Law Ballot and Proxy Form to be Mailed in June



It is time once again for the members of the International Oak Society to select a new Board of Directors and to ratify or reject two proposed changes to the Bylaws. Rudy Light is our Election Manger once more and he will be mailing the election material to members in early June. He hopes that ballots and proxies will be returned to him by the end of July.

There are 15 people running for 10 seats on the Board. One of the Bylaw changes has to do with Board term limits, and the other, with establishing a new class of Society membership. You'll want to consider the candidates carefully and whether or not to accept each of the Bylaw changes.

Rudy will also send out a proxy form, which will authorize each member who cannot attend the business meeting in England following the Fourth Conference to designate the current officers as agents to act on a member's behalf. It is important that these proxies be signed and returned to Rudy to ensure we will have a legal quorum at the business meeting. Even if you sign the proxy, you can vote on any business yourself if you attend the business meeting. So please send the ballot and proxy form to Rudy soon after you get them. Thanks - Ron Lance.



Points of Contact

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CONFERENCE 2003: Allen Coombes Sir Harold Hillier Arboretum Jeremy's Lane Ampfield, near Romsey Hampshire SO51 OQA, United Kingdom

QUESTIONS FROM THE MEDIA: Ron Lance, President Chimney Rock Park, P.O. Box 39, Chimney Rock, NC 28720, USA

Special Oak Disease Symposium Scheduled



A special symposium will be held on Tuesday morning, August 12, 2003, as part of the annual meeting of the American Phytopathological Society in Charlotte, North Carolina. The topic: Oak Disease Threats Worldwide. The symposium will include invited papers on Phytophthora diseases of oaks (Everett Hansen); massive mortality of oaks in Japan (Shinchiro Ito); oak wilt in eastern USA (Dave Appel); and oak decline in the southern USA (Stephen Oak) and in Europe (Tomasz Oszako). For further information, readers can check the APS website - www.apsnet.org



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OAK NEWS & NOTES

The Newsletter of the International Oak Society 8279 Scott Forbes Road Browns Valley, CA 95918



President: Ron Lance
Vice President: Thierry Lamant
Secretary: Dorothy Holley
Treasurer: Peter van der Linden

Editor: Doug McCreary

Send submissions to the address on the left. Telephone: 530-639-8807

Letters to the Editor

Author's Query

Established writer and IOS member who is researching the oaks for a work of creative nonfiction seeks contact with persons of significant personal and professional involvement with oak. This writer aims to connect his readers' daily experience of oak trees, wood, and products to the varied biological and cultural contexts present in oak.

Particularly advantageous would be professional expertise and personal experience with oak development, physiology, and ecology; forestry practices and policies as they affect the oaks (in the U.S. and internationally, current and historical); and the significance of the oaks in woodworking (including furniture, shipbuilding, and tight cooperage), the wine and tanning industries, art, history, literature, folklore, and mythology.

Thank you for attention to this request.

T. M. Hawley 11 Danville Street West Roxbury, MA 02132 USA

Phone: 617 325 1445

emaill: t.m.hawley@verizon.net

Request for Information

I am carrying out private research with the view to publishing a comprehensive guide to the life of the two indigenous oaks of the United Kingdom, *Quercus robur* and *Quercus petraea*.

The main areas of my research include: Evolution & Distribution; Physiological Characteristics; Ecology/ Natural History; Oak Woodlands; Diseases/Predators; Uses of Oak; Pollution/Climate; Cultural Heritage; Conservation and the Future.

I would be interested to hear from anyone who has a specific interest or has information on these two oaks. Further details of the areas covered under the above headings may be obtained from me.

Mike Tyler The Acorn Shute Road, Kilmington, Axminster Devon, England EX13 7ST

e-mail: mike@mwtyler.freeserve.co.uk

Phone: 44 (0) 1279 34958

THE WINCHESTER CONFERENCE AND TOURS

REGISTRATION

We are very much up and running thanks to your rapid response to the Registration Forms; we received our first registration, from the web site, even before the mail shots went out. All of the 123 members of both the International Oak Society and the International Dendrology Society (IDS) who responded to the First Circular should now have received their own copies of the Form by mail, and Doug is also going to enclose copies of the Second Circular in this issue of the Newsletter. The IDS and the Linnean will also be sending Forms to their memberships.

Please keep the Forms coming, and as soon as possible. The discounted rate was designed to cover any interest charges which you might incur by early payment. The important benefit for us on your Committee, is that it will help us to make a good estimate, in early June, of the likely total numbers, so that we can tailor the bookings of rooms, coaches and meals for each of the three elements of the programme. On the Second Circular and Registration Document it states that the discounted rate is only available until 1st June, 2003. However, since this newsletter (and the accompanying Circular) were delayed in sending out, we are extending the date for discounted registration until the 12th of June.

Please note that no registrations can be accepted without concurrent payment, as we have to operate permanently in credit.

PAYMENT

We are greatly indebted to the IDS for agreeing to handle our credit card payments. Having sent out the Forms, we discovered that UK law makes it impracticable to create such a facility for a charity account that exists for less than a year. Please note therefore that, if you use this method of payment, your card accounts will show the

sums as having been paid to the International Dendrology Society and not to the International Oak Society.

One or two delegates asked to use direct bank transfers. The details of the Conference accounts are listed below so that others may use this form of payment also:

Lloyds/TSB Bank, 20 High St, Gosport, PO12 1DE UK

Sort Code: 30-93-56

Account:

International Oak Society 2003 Account

Acc. No. 02137882

We have been asked to reconsider our requirement for payment in sterling. We have to pay for all the events in sterling or in Euros and we need to achieve this net of any currency or payment charges; we have however accepted the modest risk of transfers to Euros. If any delegate finds that paying in sterling is too difficult or expensive, then please e-mail me immediately and we will try to agree on some other solution.

CANCELLATION

We have been asked for our policy on cancellations. If, for some unforeseen reason, we had to cancel the Conference, or either of the tours, we would aim to repay the registration fees, in sterling. For the time being, we must also reserve the right to deduct an appropriate share of any lost deposits because, although these will probably be matched by the very generous sponsorship we have received, our first duty would be to offer to return that money. Rest assured that no deposits are being paid without the knowledge of all Board members and the approval of the Committee.

For cancellations by individual delegates who may suffer personal difficulties, provided that this does not breach the minimum numbers for each of our contracts,

we will aim to repay the full registration fees, in sterling, up to a closing date of I August. We would suggest that, if you are at all concerned about the final six weeks, you might seek to obtain cover with your travel insurance.

CONFERENCE UPDATE

Eike Jablonski, John Gammon, James Harris and Ron Lance have very kindly agreed to each chair one of the four Conference sessions, in that order. All speakers shown on the planned programme have confirmed their participation and will be contacted by the session chairs for detailed planning.

We will have only two official guests for the dinner on Sunday — the Right Worshipful the Mayor of the City of Winchester, Councillor Mrs Jean Hammerton, and her husband; the City authorities have also suggested a treeplanting ceremony which has yet to be decided. As you already know, the Right Honourable Lord Heseltine CH, himself a member of the Society, has agreed to give the after-dinner speech.

We have received bids to put up a total of 20 posters, of the published dimensions, two on each side of five display boards in the conference hall. If you have any further queries on content, Allen Coombes will be happy to advise:

allen.coombes@hants.gov.uk. The administration is in the hands of Richard Earle: Jo@rjearle.fsnet.co.uk.

Two different teams of wood sculptors have booked space in the reception area and one of them will be turning some small items, such as acorn boxes, specifically for our Conference. Dorothy has been given one of the recently cut oaks, from the Forest of Dean, which were originally planted for

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The International Oak Society accepts advertisements for oak-related enterprises in the Oak News & Notes Newsletter. A camera-ready, card-size ad costs \$25.00



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The Arkansas Forestry Commission has reported that "no single cause is responsible for oak decline." The old age of the oak trees in the state—7090 years—the region's shallow, rocky soils; and previous droughts, such as those in the 1950s and in 1980, have all contributed to the oaks' decline. The commission also cites repeated early spring defoliation by defoliating insects such as walkingsticks as additional causes of tree stress.

Stephen agrees and says "drought is certainly a factor."

In addition to finding out what is happening with the Ozark's oak trees now, Stephen and his fellow scientists are also concerned about the future of the region's forests.

Stephen says the red oak borer outbreak may change the very make-up of the Ozark forests.

When oak forests are cut, sprouts from cut oaks grow into new trees. However, sprouts are not produced when borers kill oaks. Thus, Stephen and his colleagues are concerned that, if the red oak borers continue to kill the Ozarks oak population, they could completely change the Ozark landscape and creating a forest dominated by shade-tolerant understory trees, such as maple and ash.

He also says that the vast numbers of dead trees and their falling limbs pose a threat to forest recreationists and heighten fire risk in the region.

For information, contact Fred Stephen, Department of Entomology, University of Arkansas Fayetteville, Fayetteville, AR 72701;

(479) 575-3404; fax (479) 575-2452; fstephen@uark.edu.



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Lord Nelson, and some of this wood will be used. The Navy no longer needs the oak but, as those who have heard of the Battle of Trafalgar will know, 2005 is the bi-centenary.

TOUR UPDATE

Eike Jablonski will lead the Continental Tour and Allen Coombes will lead the UK Tour. The UK Tour will end, as planned, in Winchester on the afternoon of Saturday 20 September.

One or two IDS members have already expressed concern that they would not be able to register both for the IOS UK Tour and the IDS North German Tour which is scheduled to start in Hamburg on 21 September. However, the IDS advise that they hope to arrange a group booking for a flight from London to Hamburg on the afternoon of the Sunday, thus it should be possible to make the connection with just one overnight stop, in Winchester or in London, on the Saturday night.

Please note that the hotel in Utrecht for the Pre-conference tour has recently changed ownership and now has a new name. It is now called 'Best Western Armstad', rather than the 'Malie Hotel', as it is identified in the Second Circular and Registration Document. Delegates who are arriving in Schiphol prior to the Tour should note the new name to make sure their coach from the airport or train station takes them to the right place.

STOP PRESS

This is the last occasion on which we can circulate advice in sufficient time for members to respond. From here on, therefore, we will try to give any essential updates via the web site—http://www.saintmarys.edu/~rjensen/ios.html.

Have a safe journey to Schiphol or Winchester, and when you arrive in Winchester, you will be staying at the West Down's Conference Centre, not 'West Dean', as it is called on the map which I created for the Second Circular; sorry about that, but there is no other site with which it could be confused.

Ron Holley Conference Secretary & Accountant 23crescent@supanet.com

OAK MEETING TO BE HELD IN JAPAN

An OAK 2003 MEETING will be held 29 September - 3 October 2003 in Tsukuba, Japan. It is a joint meeting of the International Union of Forest Research Organizations (IUFRO) Working Groups "Genetics of Quercus" & "Improvement and Silviculture of Oaks". You can access information about this meeting at the following web address: http://www.ffpri.affrc.go.jp/symposium/oak2003j/

This page includes announcements, updates, and registration materials.

The meeting is being hosted by the Forestry and Forest Products Research Institute of Japan. The local organizer is Ayako Kanazashi. The Conference Theme is "Integration of Silviculture and Genetics in Creating and Sustaining Oak Forests."

This is the first meeting of these two IUFRO working groups in Asia. A great field trip has been planned to visit Nikko National Park's old- and secondary growths of oak. Optional tours are also planned to Kansai and Hokkaido for those who wish to extend their stays.

If you have any questions please contact John Carlson (jec16@psu.edu), Ayako Kanazashi (ayakoka@ffpri.affrc.go.jp), or the European member of our organizing committee, Dr. Alexis Ducousso (alexis.ducousso@pierroton.inra.fr).

We look forward to seeing you in Japan in 2003!

John Carlson School of Forest Resources and The Life Sciences Consortium 304 Wartik Lab Pennsylvania State University University Park, PA 16802