Society of American Foresters

International Forestry Working Group Newsletter

Working Group B3

December 2015

Note from the editor

Thanks again to all who have contributed. The next issue of the IFWG newsletter will be in the middle of March.

Feel free to send this newsletter on to others.

If you would like to be added to the distribution list, send an email to Blair Orr (blairorr@ymail.com)

- Blair Orr, IFWG Newsletter Editor
(blairorr@ymail.com)

Contributed Articles

World Wood Day March 21, 2015

Steve Ambrose (sambrose624@hotmail.com)

Last March my wife Julia and I attended World Wood Day (WWD) in Odunpazari, Eskisehir, Turkey. WWD is a cultural event sponsored by the International Wood Culture Society (IWCS) and is celebrated annually on March 21 to highlight wood as an eco-friendly and renewable biomaterial and to raise awareness of how wood plays a role in a sustainable world through biodiversity and forest conservation. It was an exciting trip where over 400 participants attended including 127 woodcarvers/woodturners, and 60 musicians representing 93 different countries. The main event lasted for 7 days and was well attended by local people including the Mayor of Eskisehir.

One of the highlights of the event was the inclusion of so many people around the world who have music and carving in common. Strong relationships developed during the course of the

week. One of the carvers from the US made friends with a carver from Africa and is going to make and send the African a set of carving tools after seeing his minimal carving tools.

One of two chainsaw carvers working to complete his sculpture

Wood carvers from all over the world attend the IWCS event

The theme was "Wood & Humanity" to rediscover and recognize the contribution and beauty of wood as well as highlighting its significance in contemporary society. An assortment of weeklong campaigns was specially designed to explore a strong correlation between wood and humans. Highlights included a symposium, woodcraft activities, children's events, tree planting (black pine) exhibitions, performances of various wooden musical instruments and others."
Eduardo Cordova from El Salvador making masks, drums and figurines.
I have been volunteering for IWCS for the last 4 years, taking videographers around the country (New Mexico, Minnesota, Arizona, Alaska, Oregon and Washington) where IWCS staff videoed groups and individuals who use wood in their culture. Examples include Native woodcarvers, furniture makers, wood reclamation companies, drum makers and dogsled makers in Alaska.
You can see more information about the IWCS and World Wood Day at these websites. (http://www.worldwoodday.org) (http://www.iwcs.com).
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The Square Trees of Panama

An old post card from Panama on square trees and a link to more recent information:

http://www.odditycentral.com/pics/panamas-el-valle-de-anton-where-trees-are-square.html

Library Changes at the Forest History Society

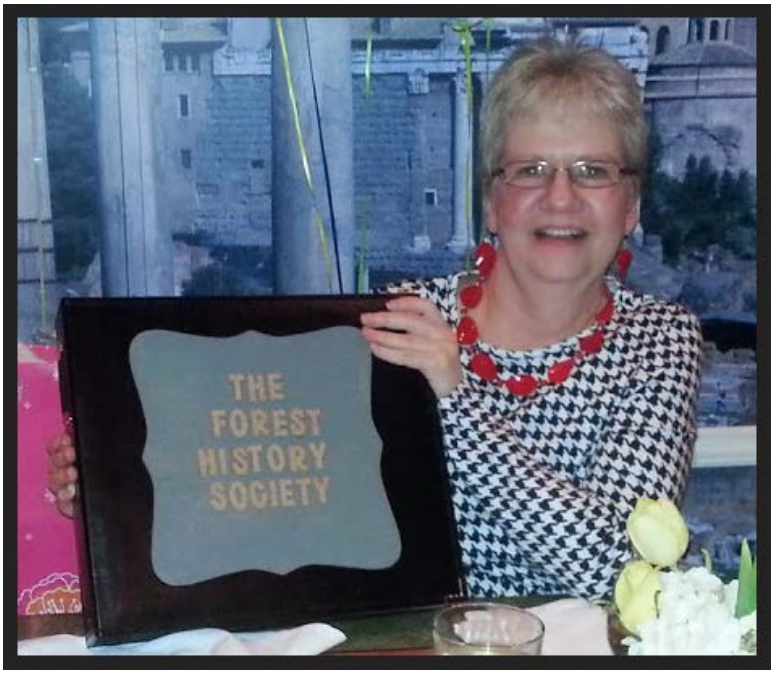
Steven Anderson

After 25 years of having responded to countless queries and helping untold numbers of researchers, FHS Librarian Cheryl Oakes has done the unthinkable and retired. She leaves behind a legacy that will be hard to duplicate, and her impact on the field of forest history is largely immeasurable, save for counting the scores of books on the FHS library shelves in which

the author gave a hearty "thank you" to Cheryl for her help either remotely or while conducting research in the FHS archives.

At her retirement party, Cheryl received two items: a photo scrapbook that included letters of praise and congratulations from many of the scholars she has aided, and the honorific of FHS Fellow. This award is bestowed on persons who have provided many years of outstanding leadership and service to the Society or many years of outstanding sustained contributions to the research, writing, or teaching of forest, conservation, or environmental history. Cheryl has done both with the highest degree of professionalism at all times, helping make the Forest History Society the respected institution it is today.

Cheryl leaves the library and archives in good hands. Eben Lehman succeeds her as Director of Library and Archives. He has served as FHS Archivist since 2007. In that capacity, he works with the digitization and cataloging of the Society's photograph collection, provides photo reference assistance, manages the FHS research databases, and produces EAD finding aids for archival collections. He also coedits and coauthors the blog "Peeling Back the Bark," and coordinates social media communications and outreach. In addition to his current duties, he will now be responsible for the oversight, management, and long-range planning of both the library and archives.



Cheryl Oakes

Jason Howard, is the newest member of the FHS staff. Jason will serve as FHS Librarian, and is responsible for managing the library and providing reference assistance for users. Previously Jason served as Head of Reference and Instructional Services at Saint Augustine's University in Raleigh, North Carolina.

Jason Howard

Jason holds a Master of Library Science degree from North Carolina Central University and a bachelor's degree in history from Saint Augustine's University. He brings a passion for reference services as well as the use of new technologies in libraries. Please direct any questions or inquiries to Jason at jason.howard@foresthistory.org or call him directly at 919-660-0543. He looks forward to answering your reference queries and meeting FHS members.

The Lacey Act and Forest Management

Jeff Prestemon and Frank Wadsworth

The 2008 Amendment of the 1900 Lacey Act prohibiting US importation of illegally obtained forest products, described in the last issue of this series, outlawed neither timber nor harvesting *per se*, but was expected to stimulate legally authorized forest management.

Five-year net effects of the Amendment on US imports of tropical hardwood lumber (after accounting for other market factors identified by a recent study by Prestemon (2015)) included prompt trade reductions, suggesting that illegal products are readily identifiable. Higher prices that followed suggest that what was eliminated was illegal. Bolivia/Peru trading volume in mahogany was down about 50% and prices up 30%; Brazilian imbuia and baboen trading volume was down about 70% and prices up 40%; Malaysian keruing trade was down 35% and prices were up 35%; Malaysian teak trade was down 85% and prices approximately doubled.

Changes in quantities and prices without correcting for other factors beyond the amended Act were still indicative of its effects. US imports of hardwood plywood from other suspected source countries were also down by an average of 50% and prices up by similar margins. These sorts of prompt, quantifiable trade reductions probably will be found also for Europe, with its 2013 European Timber Regulation 995 (EUTR) and for Australia with its 2012 Illegal Logging Prohibition Act, following the American example (See Jonsson et al 2015).

Reduced illegal logging due to trade provisions where the practice has been widespread can have deleterious effects on jobs and income generated by the timber sector overall (Li et al 2008, Prestemon and Laarman 1989) although industries in other countries could benefit therefrom. Efforts to mitigate negative social and economic impacts through institution building, such as the EU's Forest Law Enforcement, Governance, and Trade program as well as bilateral technical assistance programs managed by the US Agency for International Development could soften the long-run impacts of the 2008 Amendment and the EUTR on illegal wood source countries by encouraging more legal and sustainable wood production.

Literature Cited

Jonsson, R., A Giurca, M. Masiero, E. Pepke, D. Pettenella, G. Winkel, Assessment of the EU Timber Regulation and FLEGT Action Plan. Science to Policy, Issue 1, European Forest Institute, Joensuu, Finland 2015.

Li, R., J Buongiorno, J. A. Turner, S Zhu, and J.P. Prestemon. Long-term effects of eliminating illegal logging on the world forest industries, trade, and inventory. [Forest Policy and Economics 10(7/8):180-190 2008]

Prestemon, J. and J. G. Laarman, Should sawnwood be produced with chainsaws? Observations in Equador. [Journal of World Forest Resource Management 4(2): 111-126 1989.]

Prestemon, J. The impacts of the Lacey Act Amendment of 2008 on U. S. hardwood lumber and hardwood plywood imports. [Forest Policy and Economics 50:31-44 2015]

Announcements, Events, Meetings and Opportunities

U.S. FOREST SERVICE 2016 INTERNATIONAL SEMINARS AND WORKSHOPS

The U.S. Forest Service International Programs and our partners are pleased to announce eight international seminar opportunities in 2016:

INTERNATIONAL SEMINAR ON WATERSHED MANAGEMENT (April 4, 2016-April 22, 2016)

*Application Deadline: January 15, 2016

INTERNATIONAL SEMINAR ON FOREST LANDSCAPE RESTORATION (April 29, 2016-May 20, 2016)
*Application Deadline: January 15, 2016

INTERNATIONAL SEMINAR ON CLIMATE CHANGE AND NATURAL RESOURCE MANAGEMENT (May 5, 2015-May 21, 2016)
*Application Deadline: January 18, 2016

INTERNATIONAL SEMINAR ON PROTECTED AREA MANAGEMENT (June 27, 2016 – July 17, 2016)
*Application Deadline: April 01, 2016

INTERNATIONAL FIELD COURSE ON WILDLANDS AND PROTECTED AREA MANAGEMENT (July 06, 2016-August 06, 2016)
*Application Deadline: January 29, 2016

INTERNATIONAL SEMINAR ON RANGELAND MANAGEMENT (July 16, 2016-July 31, 2016)
*Application Deadline: March 15, 2016

INTERNATIONAL SEMINAR ON DISASTER MANAGEMENT (August 8, 2016- August 22, 2016)
*Application Deadline: April 15, 2016

NEW * INTERNATIONAL SEMINAR ON MINING (October 16, 2016-October 29, 2016)
*Application Deadline: TBD

Our international seminars promote collaborative approaches to natural resource management and strengthen professional networks spanning the globe. The participatory, field-based workshops allow participants, who have diverse experience, expertise, perspectives and approaches, the opportunity to engage in meaningful deliberation, dialogue and problem solving.

Mid- and senior-level natural resource managers with their own funding for tuition and international travel expenses are encouraged to apply for these experiential workshops. More information on the seminars, the application process, and tuition fees can be found in the attached program brochure and at
http://www.fs.fed.us/about-agency/international-programs/training-seminars

If you have any questions related to the seminars, please contact Rima Eid at 202-644-4642 or rimaeid@fs.fed.us.

15TH INTERNATIONAL PEAT CONGRESS

The 15th International Peat Congress will be held in **Kuching, Malaysia** on the **15-19th August 2016**. This congress is organized by the Malaysian Peat Society in partnership with the International Peat Society. This is the first time the Congress has been held in a tropical country and is a major opportunity to present and discuss important and emerging peatlands and peat issues. It will provide a platform on which to share views and experiences from many parts of the peatland world. So please come and join us. The venue, Kuching in Sarawak Malaysia, is ideal for this Congress with its multiracial friendliness, charm, beauty and excellent cuisine. It's a great opportunity to participate in a meeting that is combined with relaxation time in a mystical part of the rainforest world.

The Second Circular has just been issued and can be downloaded from www.ipc2016.com. Please note that the scientific and technical programme provides scope for virtually all aspects of peatlands and peat. So please submit the abstract of an oral or poster presentation or combine with some colleagues to offer a session or sub-session by the deadline **30th November 2015**. There is also the opportunity to publish full versions of papers in the on-line international scientific journal Mires and Peat (http://www.mires-and-peat.net/).

Please visit http://www.ipc2016.com/message.php for more information

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2016 World Forest Institute International Fellowship Program Applications Now Being Accepted!

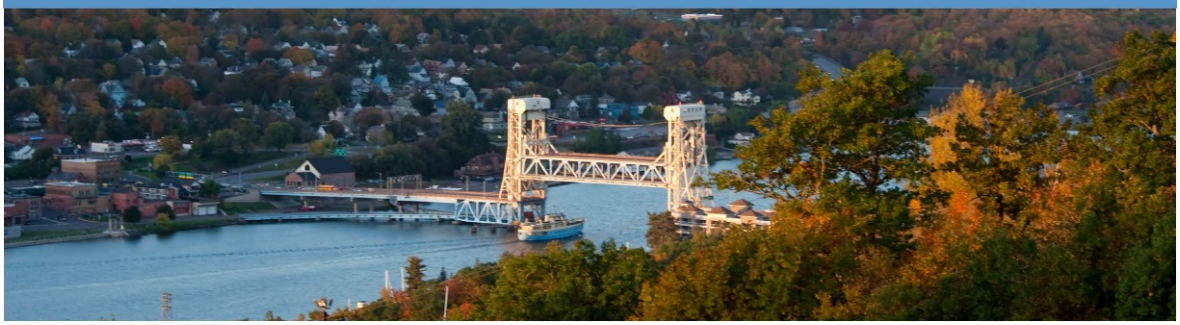
The award-winning WFI Fellowship program brings professionals in natural resources to conduct a practical research project at the World Forestry Center. In addition to projects, Fellows participate in weekly field trips, interviews and site visits to Northwest forestry organizations, research labs, universities, public and private timberlands, trade associations, mills, and corporations. The Fellowship is a unique opportunity to learn about sustainable forestry from the Pacific Northwest forestry sector, and to work with colleagues from around the world. Fellowships are open to any country, including U.S. citizens. The Fellowship program offers partial scholarships through the Harry A. Merlo Foundation, but most applicants must be able to cover at least 50% of the program fee. Over 100 Fellows from 30 countries have participated to date. The term is 6 to 12 months, and the application deadline for the 2016 program is December 31, 2015. For more information and how to apply, please visit: http://wfi.worldforestry.org/index/international-fellowship.html

ISSRM 2016
Houghton, Michigan

International Symposium for Society and Resource Management

June 22–26, 2016

Link to the website at: www.iasnr.org



Transitioning: Toward Sustainable Relationships in a Different World

The theme is designed to capitalize on Houghton's location in the heart of the Upper Midwestern Northwoods and Lake Superior coastline, complement the foci and interests of conference attendees, and resonate with participants in an era where the myriad impacts of climate change are increasingly visible and challenging.

Submission Deadlines:

- **October 30, 2015: Panel and Organized Session Proposals**
- **January 15, 2016: Abstracts for Poster and Paper Presentations**
- **March 4, 2016: Early Bird Registration Ends**

Contact us by email at: issrm2016@gmail.com

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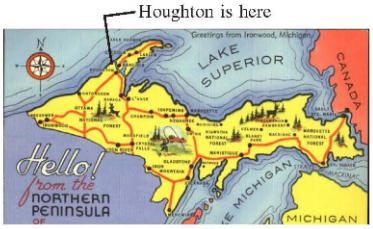

Image Source: cardcow.com

Houghton is located near Lake Superior in the western Upper Peninsula of Michigan. It is served by United Airlines with three flights daily from Chicago. Driving is 2 hours from Marquette, MI, 4 hours from Green Bay, WI or Duluth, MN and 5-7 hours from Milwaukee, Madison, WI, or Minneapolis/St Paul, MN.

Panama City | Panama

DANA
KNOWLEDGE. GROWTH. RETURNS.
International Forest Industry Advisors



Central America & Andes Timberland Investment Conference

Panama City | Panama | 16–18 May 2016 | Marriott Hotel, Panama City

This is the first DANA Conference to be held on Timberland Investment in this important region.

This DANA Conference will debate Central America & Andes Timberland Investment Opportunities.

Emerging: Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Nicaragua, Panama, Peru.
And *Frontier:* Belize, Cuba, El Salvador, Guyana.

- **More than 20 Central American and international speakers** and panellists will complete the line-up.
- Simultaneous English – Spanish translations throughout speaker presentations.
- The Event will include an optional post-Conference one day field trip to the Darien province of Panama, visiting Central American natural species plantations, teak plantations and teak wood processing plants.

- Delegates can register for the Conference and the optional field trip on the website:
  http://danapanama2016.com

CLICK HERE TO REGISTER

or can contact the organiser, Mariela Ferrari:
mferrari@danapanama2016.com

CLICK HERE TO CONTACT MARIELA

List Management Notification

List Management

The email lists for this newsletter are now being managed through a new server and several changes are now in place. (1) The reply-all no longer functions. The biggest complaint in the past was reply-all that was really not meant to be reply-all. (2) There is now an unsubscribe link at the bottom of the email. Once you unsubscribe I cannot resubscribe you without your explicit permission. (3)The email will be sent from blairorr@ymail.com, but I can still be reached at bdorr@mtu.edu.

If you are not on the list and would like to be added, send me a message: mailto:blairorr@ymail.com

SAF World Forestry Committee News

Members of SAF's World Forestry Committee and the International Forestry Working Group had a productive and exciting discussion at Convention about ways to engage more with the international community. In addition, the group also discussed how the WFC and the IFWG could work more closely together or even become an integrated group. In the coming year, be on the lookout for more frequent communication sharing current ideas and seeking further input. To facilitate dialogue on these important issues and others, please join (and encourage your colleagues to join) the B3 Working Group - International Forestry on SAF's LinkedIn site. Feel free to reach out with ideas through that site or email Danielle Watson - watsond@safnet.org.

Jason Gordon, WFC Chair
Danielle Watson, SAF Policy Associate

Join an SAF Working Group

As a member of the Society of American Foresters you can join SAF working groups by going to the website:

http://www.safnet.org/workinggroups/join.cfm

If you want to join this working group, we are B3, the International Forestry Working Group. Please pass this information along to SAF members who might be interested in joining a working group – especially B3, the International Forestry Working Group.

IFWG Wins SAF Award

The International Forestry Working Group was awarded the Outstanding Merit Award at the 2015 Society of American Foresters Convention.

Recent Publications

TROPICAL NOTES
Frank H. Wadsworth
International Institute of Tropical Forestry Library
USDA Forest Service, San Juan, Puerto Rico

Tropical Forestry Assessment, 1990 to 2015

The United Nations Global Forest Resources Assessment shows that tropical deforestation has decreased since 2010 to 3.3 Mha (milliions of hectares) per year, half the rate of the 1990‘s. South America continues to experience by far the greatest forest losses. In Central Africa forest wildlife is being lost at historically high rates. Deforestation due to smallholder expansion has given way to large-scale enterprise driven forest conversion. In Southeast Asia forest conversion remains high in response to demand for oil-palm, sugar, and wood fiber. Demand for industrial wood and charcoal, principally in the poorer countries, increased 35%. In the Congo Basin low levels of forest conversion reflect ongoing conflict rather than good management. Trees outside forests, forest patches, and young regenerating forests make up a portion of the tropical forest estate. Middle-income tropical countries have made progress in forest management and gains of 25 to

100% in timber plantation areas. Forests within protected areas in the tropics increased 27% (379Mha). Multiple-use forests permitting both production and protective conservation account for 17% of tropical forests.

Sean Sloan and Jeffrey A Sayer, Forest Resources Assessment of 2015 shows positive global trends, but forest loss and degradation persist in poorer tropical countries. [Forest Ecology and Management 352:134-145 2015]

Typhoon Haiyan in the Philippines

The typhoon of 2013 uprooted 44 million coconut palms and damaged beyond repair 30,000 fishing boats, both major food sources, and so there was an immediate demand for boat rebuilding. With the arrival of thousands of chainsaws more than 10 million m^3 of lumber for reconstruction was salvaged from the hard outer wood of coconut stems. Felled isolated trees utilized included saman, mahogany. gmelina, mango, and jackfruit. In the mangroves, all defoliated, *Rhizophora* was heavily damaged and uprooted. Three species of *Avicennia* were especially resilient and recovered foliage rapidly. Coastal forest protection was increased by the width of the forest strip, and the size and density of the trees. In the uplands damage was uneven but severe on crops such as bananas, fruit trees and timber plantations. Recovery efforts are concentrated on lumber production and replanting of coconuts, other fruits and timber trees.

P. B. Durst, Trees and forests contribute to recovery from the world's most powerful typhoon in the Philippines [Unasylva 243-244:6-16 2015]

Tropical forest significance

Tropical forests are a major regulator of global climate, cloud formation and atmospheric circulation. They exchange more water and carbon than any other biome. Over half of the earth's 5 to 20 million species reside in tropical forests. Some 1.2 to 1.5 billion people rely on tropical forests for food, timber, medicines, and other ecosystem services. Beyond national networks of well-protected forest landscapes and formal collective tenure of forest lands, large-scale landscape planning will be required to maintain forest health.

Simon L. Lewis and others. Increasing human dominance of tropical forests. [Science 349(6250):827-831 2015]

Sustainable and profitable silviculture

In the 1978 Sari Bumi Kusuma Concession of 147,600 ha of cutover ($50m^3$/ha RIL) forest in Central Kalimantan, Indonesia a government policy and the

Concessionaire's conviction led to a transition from forest exploitation to sustainable management. Vegetation on steep slopes and along streams was left natural for biodiversity and environmental services. Welfare programs were run for those living in the Concession. To sustain profitable timber yields, 49,000 ha of twice-cutover forest had by 2014 been silviculturally enriched by interplanting native trees at 5m spacing along lines 20m apart. Survival has been about 80%, and 15-year growth rates indicate that 70% of the planted trees should reach minimum cutting dbh in 25 years, opening an opportunity for more selective harvesting. Ten naturally regenerated mature trees per hectare are anticipated.

F. E. Putz and F. Ruslandi. Intensification of tropical silviculture. [Journal of Tropical Forest Science 27(3):285-288 2015]

Cloud forest epiphyte strategies

A study of cloud forest epiphytes in Costa Rica concentrated on water relations, and particularly drought endurance. Plants in this community include conservative growth forms (succulent, well-defended leaves). Drought resistance is not primarily by water storage. The 11 species of epiphytes studied all had a capacity for foliar uptake of water from the leaf surface, including cloud and fog drip and even recapture of the water transpired, in one species up to 96%.

Sybil G. Gotsch and others, Life in the treetops: ecophysiological strategies of canopy epiphytes in a tropical montane cloud forest. [Ecological Monographs 85(3):393-412 2015]

Melaleuca restores mangrove

In the Mekong Delta of Vietnam a serious issue of erosion, sedimentation and wave action in the mangroves has caused loss of planted seedlings. Two wave barriers and silt trap fences of *Melaleuca* were mounted. The wave height behind the fences was reduced 63%. In three years silt accumulated to 45cm behind the fences. *Avicennia* found the improved conditions much more favorable than *Rhizophora.* Wild seedlings of *Avicennia* began to appear behind the fences and in three years the natural mixture of the vegetation was appearing.

Chu van Cuong and others. Using *Melaleuca* fences as soft coastal engineering for mangrove restoration in Kien Giang, Vietnam. [Ecological Engineering 81:56-6 2015]

Dense terra firme Amazonian forest composition

Trees of more than 10 cm dbh in fifteen one-hectare plots in Rio Preto da Eva, in Amazonas State gave 264 tree species from 56 botanical families. Of the species 49% had only one tree. Sapotaceae, Burseraceae, and Lecythidaceae made up 39% of the trees.

Katia Emidio da Silva and others, Forest dynamic, carbon stock and phytosociology of terra firme dense forest in Central Amazonia {Scientia Forestalis Piracicaba 43(105):193-201 2015]

Differential tree water use

WUE (Tree growth per unit of transpiration) was compared for mixtures and monocultures of *Eucalyptus globulus* and *Acacia mearnsii* of ages of 14 to 15 years. *Eucalyptus* trees in mixtures that were growing faster than similar sized trees in monocultures had higher WUE. but trees with similar growth rates had similar WUE. The WUE for tree size did not differ by species or treatment. Increased basal area increased the complimentality between *Eucalyptus* growth and WUE. Growth data may provide a useful initial indication of whether mixtures have higher transpiration or WUE and which species and tree sizes contribute to this effect.

David I. Forrester, Transpiration and water use efficiency in mixed species forests versus monocultures: effects of tree size, stand density, and season. [Tree Physiology 35 (3):289-304 2015]

Enrichment in the Gulf of Guinea

Enrichment of cutover forests is practiced in the countries of the Gulf of Guinea. Concern for biodiversity has reduced the number of commercial timber species planted to 50 to 60 per hectare, leaving a mixed forest composition. Enrichment has the added benefit that forests known to be enriched with immature commercial trees species are not subject to illegal harvests.

Aubreville, and I Bossanyi. Wild forests or silviculture. [Bois et Forets des Tropiques 323 (1):55-64 2015]

Accelerated natural regeneration

After clear-cutting a pine plantation in Uganda a natural pioneer species, *Neoboutonia macrocalyx*, was planted. By six years later the planted trees, that had survived well, were up to 10 meters in height. As happens in nature, beneath

the planted trees the natural recruitment of indigenous tree species was higher, compared to control sites. A viable seedling community had been established to take over when the planted trees eventually die.

T. Piiroinen and others, Natural establishment of indigenous trees under planted nuclei: A study from a clear-felled pine plantation in an afrotropical rain forest. [Forest Ecology and Management 345:21-28 2015]

Variation among Casuarinas

Twenty provenances of *Casuarina: C. cristata, C. cunninghamiana, C. equisetifolia, C. glauca, C. junghuhniana,* and *C obesa* 12 years old were compared in Karunya, Tamil Nadu, India. The Soe Providencia of C. j*unghuhniana* was the most productive, with 54% more volume than the next ranking and widely cultivated species *C. equisetifolia*. For stem straightness, *C, cunninghamiana* was the best and therefore suited for poles. Bark thickness, wood density, and fiber traits vary significantly, and so serve different uses.

Nicodemus and others. Species-provenance variation in growth, stem form, and wood traits of Casuarina [The Indian Forester 141(2);203-210 2015]

Ghanian "hotspot" deterioration

Ghanian forests are suffering intense human pressure. Between 1995 and 2010 logging has increased sixfold. Illegal logging, which accounts for 80% of the harvest, drives use to six times the sustainable rate. Understory birds in a study area are down 50% in numbers and also in species. Recovery of logged forest and birds is inhibited by follow-up illegal logging.

Arcilla and others. Severe declines in understory birds follow illegal logging in Upper Guinea forests of Ghana, West Africa [Biological Conservation 188:41-49 2015]

***Eucalyptus* wood age machinability**

Suitability for furniture manufacture was assessed in *Eucalyptus grandis* trees of 10. 14, 20, and 25 years of age. Tests included milling, planing, boring, mortising, and cutting parallel and across the grain. Ten-year-old wood failed to qualify for planing and milling. Fourteen-year-old wood was found suitable although it has some limitations for milling. No significant differences were found between the twenty and twenty-five year wood, with both totally suitable for furniture manufacture.

Jose de Castro Silva and others [Scientia Forestalis Piracicaba 43(105):117-125 2015]

Indigenes of Ecuador reduce resource use

A survey of 480 households in 32 indigenous communities covered activities of hunting, fishing, and forest use collection and found signs of a decline. Timber harvesting did not decline but there was evidence of a decline in resource quality. Household and community characteristics such as ethnicity, demography, wealth, livelihood diversification, access to forests, participation in conservation programs, and exposure to markets were predictors of wild resource harvesting. Declines are due to urbanization and increased government services.

Clark L. Gray and others. Declining use of wild resources by indigenous peoples of the Ecuadorean Amazon.[Biological Conservation 182:270-277 2015]

Silviculture impact on fauna

Widespread forest thinning and harvesting and consideration of biofuels in Australia means that most forests have been or will be modified, with impacts on habitat for fauna. Reptile and bird habitat was assessed in four management practices in cypress-pine forests (*Callitris glaucophylla*). The fauna were different in each treatment. Impacts vary with the durability of effects. The removal of small trees causes only a brief change, but the harvest of mature trees leaves a longer impact. The evidence is that even thinning may affect the fauna and should be given consideration in forest management.

Teresa J. Eyre and others. Long-term thinning and logging in Australian cypress pine forest: Changes in habitat attributes and response of fauna. [Biological Conservation 186:83-96 2015]

Mammals and birds in remaining landscapes

A study was made in 31 landscapes of private tracts of 10,000 ha or more in Rondonia, Brazil to assess the large and medium-sized mammals and birds and understory bird populations. A threshold produced by simulated deforestation to 30-40% forest left markedly fewer species. The results imply that in further deforested landscapes many species are susceptible to extirpation following relatively small additions in reduction of forest area. In future years a decline is predicted to only 22% of the landscapes with threshold forest areas adequate to support 75% of the species measured.

Jose Manuel Ochoa Quintero and others. Thresholds of species loss in Amazonian deforestation frontier landscapes. [Conservation Biology 29(2):440-451 2015]

Birds through primary and secondary

Near Manaus, Brazil two wood-creepers and a terrestrial ant-thrush were tracked in primary and secondary forest. All three species showed greater fidelity to the primary forest than to 8-14-year secondary. The wood-creepers used 12-18-year secondary in a manner comparable with the primary forest but the ant-thrush avoided even 27-31-year secondary. A conclusion is that at least a 30-year secondary is needed for return of primary conditions.

Luke L. Powell and others. Heterogeneous movement of insectivorous Amazonian birds through primary and secondary forest: A case study using multistate models with radiotelemetry data. [Biological Conservation 188:100-108 2015]

Fertilizing *Eucalyptus* in Colombia

In the Colombian Andes fertilization of *Eucalyptus grandis* began at age 11 to 24 months with nitrogen, phosphorus, and boron. and was repeated after 6, 12, 24 and 36 months. Response was recorded after three years. Maximum nitrogen application was 720 kg/ha. Responses differed by 4 sites. Maximum response on two sites was with 360 and 480 kg/ha of nitrogen.

Timothy J. Albaugh and others. Response of *Eucalyptus grandis* in Colombia to mid-rotation fertilization is dependent on site and rate but not frequency of application. [Forest Ecology and Management 350:30-39 2015]

Fuelwood from a National Park

Fuelwood extraction impacts in the Mt. Elgon National Park of Uganda were assessed. An Interview with 192 households dependent solely on the Park indicated consumption of from 1 to 2 m^3 per capita per year. Included is at least 1,000 m^3 of dead wood and illegal commercial fuelwood harvesting and charcoal making. Allowing dead wood extraction leads to other removals. Highly preferred tree species are those most depleted. Negative consequences are visible for the people who depend on the Park for conservation.

Marieke Sassen and others, Fuelwood collection and its impacts on a protected tropical mountain forest in Uganda. [Forest Ecology and Management 354:56-67 2015]

Phosphorus and legumes for bauxite restoration

Restoration of forest on abandoned bauxite mine sites in Australia uses jarrah, (*Eucalyptus marginata*) forest. A study was made applying phosphorus alone and in combination with 7 large-leaved understory N-fixing legumes. Five years after P application of 20kgP/ha tree growth increased significantly, but this was not increased further by 80kgP/ha. Nor was tree growth affected by seeding the legumes. However they succeeded in stimulating other desirable vegetation.

Matthew I. Daws and others. Phosphorus fertilization and large legume species affect jarrah forest restoration after bauxite mining. [Forest Ecology and Management 354:10-17 2015]

Variation in forest respiration and CO_2 efflux

Measurements of four tree species in a wet tropical forest showed foliar respiration to vary little by species but to be triple in the overstory what it is in the understory, almost proportional to relative leaf areas. Height explained much of the variation.
Shinichi Asao and others, Variation in foliar respiration and wood CO_2 efflux rates among species and canopy layers in a wet tropical forest. [Tree Physiology 35(2):148-159 2015]

Litter nutrients sustained

In a tropical montane forest in China litterfall was compared with season and degree of forest disturbance. Total litter production in mature and in regenerating forests was not significantly different. Total litterfall had a peak during the dry season. Across the forest disturbance gradient there was a substantial change in species composition but no significant difference in litter nutrient content. Anthropogenic forest disturbances may not always lead to changes in litter quality.

Ekananda Paudel and others, Litterfall and nutrient return along a disturbance gradient in a tropical montane forest. [Forest Ecology and Management 353(1):97-106 2015]

Logging damage in Bolivia

After logging in an Amazonian forest the mortality of trees damaged peaked during the first year after logging and slowly declined to background rates by the

8th year, after which the risk of loss is the same as that of undamaged trees. Trees that were inclined suffered the highest mortality rate. Crown damage reduced subsequent growth the most. Unanticipated was increased drought resistance of damaged trees that had lost leaf area.

Alexander Shenkin and others, Fates of trees damaged by logging in Amazonian Bolivia [Forest Ecology and Management 357(1):50-59 2015]

Post-earthquake restoration in Haiti

After the 2010 earthquake there was an influx of people from Port-au-Prince into the country damaging natural resources. FAO implemented a watershed conservation project for three years. Twelve Watershed Management Committees were set up. For the production of 3 million trees annually 44 nurseries were established. About a third of the trees were fruits, with emphasis on cashew. Jobs were created for 7,500 households.

R. Fankap and K. A. Daphnis. Environmental and social reconstruction in Haiti: watershed management in Léogâne and Petit Goâva following the 2010 earthquake. [Unasylva 243-244:25 2015]

Conflict and forest in Darfur

Central and Southern Darfur, between the Sudan and Chad, were rich in valuable timber such as mahogany (*Khaya senegalensis*). Since 2003 a civil war has left some 2.5 million displaced persons. The government has permitted clearing of trees for their camps. These people, with limited options, unsustainably cut trees and make charcoal, inflicting severe damage in 23 forest reserves. Worsening security has facilitated unauthorized trafficking in forest products. When the displaced persons return to their original domains they can be expected to use trees also to rebuild homes and other community facilities.

A.Oshiek, Conflict and forest resources in Darfur.[Unasylva 55(243/244):62-66 2015]

PFC requirements in Eastern Cameroon

The requirements for Smallholder Participatory Forestry Committees (PFC's) are illustrated by the results from their lack in the Cameroon districts of Boumba-Ngoko and Kadey. There is a lack of Committees in some heavily logged areas, absence of statutory documents, inadequacy of funding, lack of cooperation with forest management partners, and unequal representation of social groups in

decisions. Consequently Committee compliance with legal requirements is low and the objectives assigned to Committees are not being achieved.

F. Kouedji and others. Participatory forest management: A performance assessment of Smallholder Forester Committees in Eastern Cameroon. [Bois de Forets des Tropiques 324 (2):19-28 2015]

Wildlife in secondary forest

Animal studies show a change in dominance from habitat generalists to forest specialists. Studies of small mammals in the Atlantic Forest indicate that changes are driven by changes in food availability. In younger forest habitat generalists decreased with a decrease in arthropod biomass. Secondary forest may be valuable for conservation, at least where habitat loss and fragmentation are not high and old growth forest is still available.

Bruno T. Pinotti and others. Wildlife recovery during tropical forest succession: Assessing ecological drivers of community change. [Biotropica 47(6):765-774 2015]

N and P on *P. radiate*

In second-rotation *Pinus radiata* plantations on phosphorus-deficient soils in New South Wales growth response was good from immediate application of phosphate fertilizer at the time of planting. Broadcast treatment with nitrogen/phosphorus fertilizer produced a long-term effect over several growing seasons. When the deficiency of phosphorus was overcome, the application of nitrogen produced added growth responses. Productivity over 24 years could be doubled by timely application of fertilizers.

J. Turner and Marcia J. Lambert. [Australian Forestry 78(4):207-218 2015]

Experiences in Knowledge Building and Transfer in Base Communities

Abstract: Information is the base for technological improvements, which are the way for creating people welfare. One of the reasons of the lack of new technologies and knowledge adoption in base communities, is the difficult in crossing the gap between the sources and the targets of this information. Also, the replacement of local knowledge with foreign practices, without considering local previous knowledge and wisdom has been a common mistake, which can leave these communities to lose their own or simply refuse the new, stalling in a non-developing stage. The areas of work include: emergency preparedness and wildfires suppression in rural and sub-urban and forest operations and

management workers; emphasizing in adult-oriented education (Andragogy), using self-building knowledge and learning by doing. During the process the "knowledge keeper" goes into the community making close contact with the real world problems and realities, detecting the found needs and compares them with those that the community expresses, obtaining an effective process of developing and community organization and better operation techniques. Then the external agent job is helping people to close the gap using their base knowledge and further technics with the newer practices to be adopted, generating small changes and improvements that create development. In this paper the author shares personal experiences in transferring knowledge, technics and practices in local base communities in Colombia, South America.
Keywords: Knowledge transfer, community learning, Adult education, Andragogy

Calderón-Sánchez, D.A., Experiences in Knowledge Building and Transfer in Base Communities. Paper presented at the XIV WORLD FORESTRY CONGRESS, Durban, South Africa, 7-11 September 2015. Author: dorian.calderon@gmail.com.

Complete Paper:
http://foris.fao.org/wfc2015/api/file/552d81bd9e00c2f116f8e64d/contents/cef05419-10cd-4799-98b7-d1cf36606c7f.pdf

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Futures of Tropical Production Forests.

Forests are landscape-embedded complex systems with fates determined by multitudes of changing and interacting factors that are sectoral and extra-sectoral, biophysical and political, predictable and chaotic. The diversity of forest states (e.g. secondary, degraded, fragmented, invaded and managed) and the fact that none of these states is permanent gives reason for hope; even deforestation need not be permanent. With so many forest values recognized to different degrees by different people, the future of tropical production forests is likely to represent an ever-changing mosaic of a gradient of forested-type landscapes. To assure that this future is as environmentally, socioeconomically and politically sound as possible, researchers need to synthesize and evaluate what is known and then build on that knowledge while they continue learning. There is a critical need for interdisciplinary research at appropriate scales with the best designs possible to capture the impacts of relevant silvicultural treatments on the full range of response variables.

Putz, F.E., and C. Romero. Futures of Tropical Production Forests. 2015. CIFOR Occasional Paper no. 143. Center for International Forestry Research (CIFOR), Bogor, Indonesia.

Complete Paper: http://www.cifor.org/library/5766/futures-of-tropical-production-forests/

Repositioning culture for development: women and development in a Nigerian rural community.

Most studies on women have ignored women's view of themselves in relation to their roles in community development. This study uses interview and ethnographic data from Nigeria to investigate women's narratives of themselves concerning their position in a rural cultural space in relation to community development. It explores ways of repositioning patriarchal or gender unresponsive cultures for eliciting women's potentials in community development. It emphasizes how women's cultural constrains in a patriarchal community have led to a rare survival strategy – that is, the evolution of an invisible matriarchy. As a recommendation, it presents a framework for culture repositioning and a map of actors' responsibilities for its achievement. It contributes to ongoing debates on women in rural community development. It raises conceptual questions about customary practices that affect women's values in communities in Nigeria's rural areas. Finally, it presents three main lessons that can be drawn by women (and men) in traditional communities in non-Western societies.

Chigbu, U.E. Repositioning culture for development: women and development in a Nigerianrural community. Community, Work and Family 18(3).

Available online:
http://www.tandfonline.com/doi/full/10.1080/13668803.2014.981506

The Use of DNA Barcoding in Identification and Conservation of Rosewood (*Dalbergia* spp.)

The genus *Dalbergia* contains many valuable timber species threatened by illegal logging and deforestation, but knowledge on distributions and threats is often limited and accurate species identification difficult. The aim of this study was to apply DNA barcoding methods to support conservation efforts of *Dalbergia* species in Indochina. We used the recommended *rbcL*, *matK* and ITS barcoding markers on 95 samples covering 31 species of *Dalbergia*, and tested their discrimination ability with both traditional distance-based as well as different model-based machine learning methods. We specifically tested whether the markers could be used to solve taxonomic confusion concerning the timber species *Dalbergia oliveri*, and to identify the CITES-listed *Dalbergia cochinchinensis*. We also applied the barcoding markers to 14 samples of unknown identity. In general, we found that the barcoding markers discriminated among *Dalbergia* species with high accuracy. We found that ITS yielded the single highest discrimination rate (100%), but due to difficulties in obtaining high-quality sequences from degraded material, the better overall choice for *Dalbergia* seems to be the standard *rbcL+matK* barcode, as this yielded discrimination rates close to 90% and amplified well. The distance-based method TaxonDNA showed the highest identification rates overall, although a more complete specimen sampling is needed to conclude on the best analytic method. We found strong support for a monophyletic *Dalbergia oliveri* and encourage that this name is used consistently in Indochina. The CITES-listed *Dalbergia*

cochinchinensis was successfully identified, and a species-specific assay can be developed from the data generated in this study for the identification of illegally traded timber. We suggest that the use of DNA barcoding is integrated into the work flow during floristic studies and at national herbaria in the region, as this could significantly increase the number of identified specimens and improve knowledge about species distributions.

Hartvig, I., M. Czako, E.D. Kjaei, L-R. Nielsen, and I. Theilade. The Use of DNA Barcoding in Identification and Conservation of Rosewood (*Dalbergia* spp.). PLoS One 10(9). 2015.

Full article: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4573973/

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http://www.itto.int/market_information_service/

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http://www.iufro.org/science/special/wfse/wfse-publications/

FAO State of the World's Forests 2014

The Food and Agriculture Organization's (FAO) Report on the State of the World's Forests 2014 can be found at this website: http://www.fao.org/forestry/sofo/en/

Reports from earlier years are also available at this site.

FAO InFO News
A newsletter from FAO Forestry

The Food and Agriculture Organization's Forestry newsletter is available at this link:

http://www.fao.org/forestry/infonews/en/

Unasylva

http://www.fao.org/forestry/unasylva/en/ - An FAO forestry publication going back to 1947.

Global Forest Information Service (GFIS)

https://www.gfis.net/gfis/en/en/ (also available in Spanish and French) Global Forest Information Service contains up-to-date information on news, events, publications and job vacancies (on the homepage) and lists other info resources such as databases, as part of the GFIS system.