



# INDEX Arboriculture & Urban Forestry Volume 40, 2014

# Acer spp. (maple)

branch dynamics on open-grown tree,

crown structure and dynamic properties, 218

increased growth with improved soil quality, 319

pruning buttress roots, 230

# anchoring landscape trees, 27 apple scab

phosphite for control, 237

#### ash (Fraxinus spp.)

failure criteria in branch members, 36 patterns of herbivory by borers, 332

# ash borer, emerald

patterns of herbivory, 332

Avalos, Javier (and A. Sánchez), Evaluation of failure criteria in branch members under torsion and bending moment, 36

Banks, Jonathan M. (and G.C. Percival), Failure of foliar-applied biostimulants to enhance drought and salt tolerance in urban trees, 78

# beech (Fagus spp.)

biostimulants to enhance drought and salt tolerance, 78

#### beetle, longhorned

host trees, 143

# bending stress

anchorage of container-grown mahogany, 27 failure criteria, 36

#### Betula spp. (poplar)

increased growth with improved soil quality, 319

# biomechanics

crown structure and dynamic properties in maple, 218 literature review, 1 white paper, 309

#### biostimulants

drought and salt tolerance enhancement, 78

#### book reviews

The Life of a Leaf, 49 Methods in Forest Canopy Research, 187 The Practical Science of Planting Trees, 112 Tree Health—A Practical and Precise Estimation Method, 351 Wasp and Bee Management: A

Common-Sense Approach, 46

#### borer, emerald ash

patterns of herbivory, 332

#### branches

dynamics on open-grown tree, 125 failure criteria evaluation, 36 Bryant, Gregory. *see* Noukoun,

Chanthammavong

#### California

Million Trees LA, 286

#### campuses

tree condition and value for, 165

#### cankerworm

effect of sticky bands, 135

#### collective action

neighborhood-planted trees, 84

#### compost

to improve soil quality, 319

#### container stock

anchorage of mahogany, 27 root ball morphology, 16

Cowett, F.D., Methodology for spatial analysis of municipal street tree benefits, 112

#### crown structure

and dynamic properties in maple, 218
Custic, Melissa. *see* Watson, Gary W.
Dahle, Gregory (and J. Grabosky, B.
Kane, J. Miesbauer, W. Peterson,
F.W. Telewski, A. Koeser, and G.
Watson), Tree biomechanics: A white
paper from the 2010 international
meeting at research summit at The
Morton Arboretum (Lisle, Illinois,
U.S.), 309 *see also* James, Kenneth R.

# defoliation

cankerworm, 135

Delshammar, Tim. *see* Nielsen, Anders B.

# demographics

tree planting programs, 70
Detter, Andreas. *see* James, Kenneth R.
Donovan, Geoffrey H. (and J. Mills),
Environmental justice and factors
that influence participation in tree
planting programs in Portland,
Oregon, U.S., 70

#### drought tolerance

biostimulants to enhance, 78

#### emerald ash borer

patterns of herbivory, 332

# environmental justice

tree planting programs, 70

# Fagus spp. (beech)

biostimulants to enhance drought and salt tolerance, 78

#### fertilizer and fertilizing

trees in field soil, 178

Fraedrich, Bruce R. *see* Smiley, E. Thomas

Frank, Steven D. *see* Noukoun, Chanthammavong

#### Fraxinus spp. (ash)

failure criteria in branch members, 36 patterns of herbivory by borers, 332

#### fungi

apple scab, 237

Gilman, Edward F. (and C. Harchick), Root system morphology influences lateral stability of *Swietenia* mahagoni, 27

Gilman, Edward F. (and M. Paz), Container production strategies influence root ball morphology, 16

Gilman, Edward F. (and M.D. Marshall), Fertilizer rate and number of applications impact growth of trees in field soil, 178 *see also* Miesbauer, Jason W.

Giurcanu, Mihai. *see* Miesbauer, Jason W. Grabosky, Jason. *see* Dahle, Gregory; James, Kenneth R.

#### ground scanning

single-tree level data collection, 96 Hailey, Luke E. (and G.C. Percival), Comparative assessment of phosphite formulations for apple scab (*Venturia inaequalis*) control, 237

Harchick, Chris. see Gilman, Edward F. Hewitt, Angela M. see Watson, Gary W.

#### holly (*Ilex* spp.)

biostimulants to enhance drought and salt tolerance, 78

Holmes, Liza. see Smiley, E. Thomas

## human impacts

mitigating impacts on root systems, 249

356 Index for 2014

# Hung, I-Kuai. *see* Kulhavy, David L. **hurricanes**

low cycle fatigue failure in hurricane winds, 272

# *Ilex* spp. (holly)

biostimulants to enhance drought and salt tolerance, 78

#### Indiana

neighborhood-planted trees, 84 James, Kenneth R., A study of branch dynamics on an open-grown tree, 125 James, Kenneth R. (and G.A. Dahle, J.

Grabosky, B. Kane, and A. Detter),
Tree biomechanics literature review:
Dynamics, 1

Kane, Brian. *see* Dahle, Gregory; James, Kenneth R.

Koeser, Andrew. see Dahle, Gregory Kulhavy, David L. (and D. Wu, D.R. Unger, I-K. Hung, and J. Sun), Comparison of tree condition and value for city parks and Stephen F. Austin State University in Nacogdoches, Texas, U.S., 165

Leigh, Warren B., Low cycle fatigue failure of a Sitka spruce tree in hurricane winds, 272

Lo, Marvin. see Watson, Gary W.

# longhorned beetle

host trees, 143

# mahogany (Swietenia spp.)

anchorage of container-grown, 27

# manganese, 345

#### maple (Acer spp.)

branch dynamics on open-grown tree,

crown structure and dynamic properties, 218

increased growth with improved soil quality, 319

pruning buttress roots, 230

Marshall, Michael D. *see* Gilman, Edward F.

Martinson, Holly M. (and C. Sargent and M.J. Raupp), Tree water stress and insect geographic origin influence patterns of herbivory by borers in green (*Fraxinus pennsylvanica*) and Manchurian (*F. mandshurica*) ash, 332

McPherson, E. Gregory, Monitoring Million Trees LA: Tree performance during the early years and future benefits, 286

# micronutrients, 345

Miesbauer, Jason W. (and E.F. Gilman and M. Giurcanu), Effects of tree crown structure on dynamic properties of *Acer rubrum* L. 'Florida Flame,' 218 *see also* Dahle, Gregory

Mills, John. *see* Donovan, Geoffrey H. Mincey, Sarah K. (and J.M. Vogt),

Watering strategy, collective action, and neighborhood-planted trees: A case study of Indianapolis, Indiana, U.S., 84

Moore, G.M., Wind-thrown trees: Storms of management? 53

Nielsen, Anders B. (and J. Östberg and T. Delshammar), Review of urban tree inventory methods used to collect data at single-tree level, 96 Nilsson, Johan. *see* Sjöman, Henrik

Noukoun, Chanthammavong (and G. Bryant and S. Frank), The effect of sticky bands on cankerworm abundance and defoliation in urban trees, 135

#### nursery stock

effects of fertilizing trees grown in field soil, 178

## oak (Quercus spp.)

biostimulants to enhance drought and salt tolerance, 78

sticky bands for cankerworm, 135

#### Oregon

tree planting programs, 70 Östberg, Johan. *see* Nielsen, Anders B.; Sjöman, Henrik

# parks

Million Trees LA, 286 tree condition and value for, 165 Paz, Maria. *see* Gilman, Edward F. Percival, Glynn C. *see* Banks, Jonathan M.

# pests and pest control

cankerworm, 135 emerald ash borer, 332 longhorned beetle, 143

Peterson, Ward. see Dahle, Gregory

#### phosphite

for apple scab control, 237

#### Phytophthora

and yew, 345

# Picea spp. (spruce)

low cycle fatigue failure in hurricane winds, 272

#### plant nutrition

tissue testing for optimal, 345

#### planting initiatives

Million Trees LA, 286

#### poplar (Betula spp.)

increased growth with improved soil quality, 319

# pruning buttress roots, 230

## Quercus spp. (oak)

biostimulants to enhance drought and salt tolerance, 78 sticky bands for cankerworm, 135

Raupp, Michael J. see Martinson, Holly M.

#### **Rhode Island**

spatial analysis of street tree benefits, 112

#### roots

influence of morphology on anchorage, 27 influence of soil in urban and suburban settings, 193 mitigating human impacts, 249 pruning buttress, 230 root ball morphology influenced by container production, 16 and windthrow, 53

#### rowan (Sorbus spp.)

biostimulants to enhance drought and salt tolerance, 78

#### salt tolerance

biostimulants to enhance, 78
Sánchez, Adolfo. see Avalos, Javier
Sargent, Chris. see Martinson, Holly M.
Scharenbroch, Bryant C. (and G.W.
Watson), Wood chips and compost
improve soil quality and increase
growth of Acer rubrum and Betula
nigra in compacted urban soil, 319

Sjöman, Henrik (and J. Östberg and J. Nilsson), Review of host trees for the wood-boring pests *Anoplophora glabripennis* and *Anoplophora chinensis*: An urban forest perspective, 143

Smiley, E. Thomas (and L. Holmes and B. Fraedrich), Pruning of buttress roots and stability changes of red maple (*Acer rubrum*), 230

#### soil

improving compacted urban, 319 influence on root growth in urban and suburban settings, 193

# Sorbus spp. (rowan)

biostimulants to enhance drought and salt tolerance, 78

# spatial analysis

street tree benefits, 112

# spruce (Picea spp.)

low cycle fatigue failure in hurricane winds, 272

#### storms

low cycle fatigue failure in hurricane winds, 272 windthrow damage, 53

#### street trees

single-tree level data collection, 96 spatial analysis of benefits, 112 Sun, Jianghua. *see* Kulhavy, David L.

#### surveys

single-tree level data collection, 96

# Swietenia spp. (mahogany)

anchorage of container-grown, 27

#### systemic induced resistance

phosphite for apple scab control, 237

# Taxus spp. (yew)

managing in the landscape, 345
Taylor, Matthew D., Preventing
death and *Taxus*: Review and
recommendations for managing *Taxus* in the landscape with overview
on *Phytophthora cinnamomi*, soil,
and nutrition status, 345

Telewski, Frank W. see Dahle, Gregory Texas

tree condition and value for parks and university, 165

#### tissue testing

for optimal plant nutrition, 345

#### tree failure

evaluation in branch members, 36 low cycle fatigue in hurricane winds, 272

white paper, 309

#### tree inventories

for parks and campuses, 165 single-tree level data collection, 96

#### tree planting

neighborhood-planted trees, 84 program participation, 70

#### trees

biomechanics, 1 host for longhorned beetle, 143 influence of fertilizer rates and number of applications on growth, 178

valuation for parks and campuses, 165 Unger, Daniel R. *see* Kulhavy, David L. Vogt, Jessica M. *see* Mincey, Sarah K.

# water

management for mature yew, 345 neighborhood-planted trees, 84 stress and patterns of herbivory, 332

Watson, Gary W. (and A.M. Hewitt, M. Custic, and M. Lo), The management of tree root systems in urban and suburban settings: A review of soil influence of root growth, 193

Watson, Gary W. (and A.M. Hewitt, M. Custic, and M. Lo), The management of tree root systems in urban and suburban settings II: A review of strategies to mitigate human impacts, 249

see also Dahle, Gregory; Scharenbroch, Bryant C.

#### wind

causes of windthrow, 53 low cycle fatigue failure in hurricane winds, 272 tree biomechanics, 1

#### wood chips

to improve soil quality, 319 Wu, Di. see Kulhavy, David L. yew (*Taxus* spp.) managing in the landscape, 345 zinc, 345