INDEX

Arboriculture & Urban Forestry
Volume 41, 2015

Acer spp. (maple)
effects of 200 years of urbanization, 136
effects of mulch, root pruning, and planting depth, 75
effects of pruning on growth and structure, 11
effects of wire basket retention, 18
impacts of container retention time on root architecture, 146
leaf-gas exchange in urban street sites, 113
response to reduced irrigation in semi-arid climate, 334

alien species
nonnatives enhance urban landscape biodiversity, 173

allergens
spatial variation of tree pollen in cities, 57

Alvarez, Ivan André (and B.C Gallo, E.A.M. Garçon, and O.T. Oshiro)
Street tree inventory of Camoinas, Brazil: An instrument for urban forestry management and planning, 233

anchorage
effect of mulch, root pruning, and planting depth, 75
influence of container porosity and root pruning, 155

arborists
crew size and inventory efficiency, 223
Tsuga preference, 41

ash (Fraxinus spp.)
mortality models, 270
symptoms associated with EAB, 103

ash borer, emerald, 103, 270
aspect ratio
pruning effects on structure and growth, 11
pruning severity and crown position, 69
structural pruning and wind strain, 3

bark
included and effect of strength of bifurcations, 194
Bates, Amber. see Montague, D. Thayne

beech (Fagus spp.)
effects of 200 years of urbanization, 136

bifurcation
included bark and strength of, 194

biomechanics
pruning effects on strain in wind, 3
Bond, Jerry. see Nowak, David J.

book reviews
The ABCs Field Guide to Young and Small Tree Pruning, 49

borers
delimiting invasive, 125
emerald ash, 103, 270
Boyes, Kayla N. see Clark, Rachel E.

Brazil
tree inventories as management and planning tool, 233

Canada
pest vulnerability in urban forest, 26

canopy
residential ecosystems, 324
Chalker-Scott, Linda, Nonnative, noninvasive woody species can enhance urban landscape biodiversity, 173
Chappelka, Arthur H. (and E.F. Loewenstein, G.L. Somers, G.J. Keever, and N.A. Martin), Determination of crew size efficiency relative to urban tree inventories, 223

Connecticut
long-term benefits of planting programs, 324

container stock
impacts of retention time on root architecture, 146
influence of container porosity, 155
Conway, Temley M. see Vecht, Jennifer

Corvulus spp. (hazel)
strength of bifurcations, 194

crowns
and aspect ratio, 69
Delshammar, Tim (and J. Östberg and C. Öxell), Urban trees and ecosystem disservices--A pilot study using complaints records from three Swedish cities, 187
diversity
enhancing urban landscape, 173
pest vulnerability in urban forest, 26
Dolan, Rebecca W., Two hundred years of forest change: Effects of urbanization on tree species composition and structure, 136
Dunn, J. see Strom, B.L.

ecosystems, residential
long-term benefits of planting programs, 324
Edgar, Jeff. see Koeser, Andrew

elm (Ulmus spp.)
effect of mulch, root pruning, and planting depth, 75
impacts of container retention time on root architecture, 146

emerald ash borer, 103, 270
energy conservation
influence of planting configuration on residential shade, 208
Ennos, Roland. see Slater, Duncan

error
Trunk Formula Method precision analysis, 279

evaporation
maple response to reduced irrigation in semi-arid climate, 334

Fagus spp. (beech)
effects of 200 years of urbanization, 136
Fischer, Burnell C. see Vogt, Jess

Fraxinus spp. (ash)
mortality models, 270
symptoms associated with EAB, 103
Garç\text{\textacutedo}, Bruna Cristina. see Alvarez, Ivan André
Garç\text{\textacutedo}, Edlene Aparecida Monteiro. see Alvarez, Ivan André

Germany
leaf-gas exchange in urban street sites, 113

©2015 International Society of Arboriculture
Gillner, Sten (and S. Korn and A. Roloff), Leaf-gas exchange of five tree species at urban street sites, 113
Gilman, Edward F. (and J.W. Miesbauer and F.J. Masters), Structural pruning effects on stem and trunk strain in wind, 3
Gilman, Edward F. (and M. Paz and C. Harchick), Container and landscape planting depth and root ball shaving affects Magnolia grandiflora root architecture and landscape performance, 260
Gilman, Edward F. (and M. Paz and C. Harchick), Container wall porosity and root pruning influence on Swietenia mahogani root ball architecture and anchorage after planting, 155
Gilman, Edward F. (and M. Paz and C. Harchick), Nursery planting depth, mulch application, and root pruning at landscape planting affect tree health and anchorage, 75
Gilman, Edward F. (and M. Paz and C. Harchick), Retention time in three nursery container volumes impacts root architecture, 146
Gilman, Edward F., Pruning Acer rubrum at planting impacts structure and growth after three growing seasons, 11
Gilman, Edward F., Pruning severity and crown position influence aspect ratio change, 69
Ginzelt, Matthew D. see Hughes, Gabriel P.
Gleditsia spp. (honeylocust) effects of wire basket retention, 18
ground-penetrating radar for locating tree roots, 245
Harchick, Chris. see Gilman, Edward F.
Harper, Richard W. see Dampier, Jason E.
Hauer, Richard. see Koese, Andrew; Vogt, Jess
hazel (Corylus spp.) strength of bifurcations, 194
heat islands influence of planting configuration on residential shade, 208
hemlock (Tsuga spp.)
T. chinensis vs. T. canadensis, 41
history urbanization and tree species and composition, 136
Hodel, Donald R. see Komen, James
honeylocust (Gleditsia spp.) effects of wire basket retention, 18
horticulturists Tsuga preference, 41
Hughes, Gabriel P. (and C.S. Sadoff and M.D. Ginzel), A borer-specific assessment scheme for identifying sentinel trees to delimit invasive borers in urban forests, 125
Hwang, Won Hoi (and P.E. Wiseman and V.A. Thomas), Tree planting configuration influences shade on residential structures in four U.S. cities, 208
Indiana urbanization and tree species and composition, 136
insecticides southern pine beetle, 88
Keever, Gary J. see Chappelka, Arthur H.
Kleinhuizen, David. see Koese, Andrew
Koese, Andrew (and R. Hauer, J. Edgar, and D. Kleinhuizen), Impacts of wire basket retention and removal on planting time, root-ball condition, and early growth of Acer platanoides and Gleditsia triacanthos var. inermis, 18
Komen, James (and D.R. Hodel), An analysis of the field precision of the CTLA trunk formula method, 279
Korn, Sandra. see Gillner, Sten
leaf-gas exchange five species of urban trees, 113
Lemelin, R. Harvey. see Dampier, Jason E.E.
Tilia (linden) leaf-gas exchange in urban street sites, 113
Linney, Patrick L. see Weinberger, Kate R.
Locke, Dexter H. (and L.A. Roman and C. Murphy-Dunning), Why opt-in to a planting program? Long-term residents value street tree aesthetics, 324
Loewenstein, Edward F. see Chappelka, Arthur H.
Lovasi, Gina S. see Weinberger, Kate R.
Magnolia spp. effects of root ball shaving and planting depth, 260 impacts of container retention time on root architecture, 146
Linney, Patrick L. see Weinberger, Kate R.
Locke, Dexter H. (and L.A. Roman and C. Murphy-Dunning), Why opt-in to a planting program? Long-term residents value street tree aesthetics, 324
Loewenstein, Edward F. see Chappelka, Arthur H.
Lovasi, Gina S. see Weinberger, Kate R.
Magnolia spp. effects of root ball shaving and planting depth, 260 impacts of container retention time on root architecture, 146
leaf-gas exchange in urban street sites, 113
response to reduced irrigation in semi-arid climate, 334
Marshall, Jordan M. see Clark, Rachel E.
Martin, Nicholas A. see Chappelka, Arthur H.
Masters, F.J. see Gilman, Edward F.
Meeker, J.R. see Strom, B.L.
Miesbauer, Jason W. see Gilman, Edward F.
models
ash mortality, 270
Montagut, D. Thayne (and A. Bates), Response to two field-grown maple (Acer) species to reduced irrigation in a high vapor pressure, semi-arid climate, 334
Moore, G.M. (and C.M. Ryder), The use of ground-penetrating radar to locate tree roots, 245
Morgan, Lori E. see Clark, Rachel E.
mulch and mulching effect on health and anchorage, 75
Murphy-Dunning, Colleen. see Locke, Dexter H.
Nowak, David J. (and J.T. Walton, J. Baldwin, and J. Bond), Simple street tree sampling, 346
oak (Quercus spp.) leaf-gas exchange in urban street sites, 113
Oldland, W.K. see Strom, B.L.
Oshiro, Osvaldo Tadatomo. see Alvarez, Ivan André
Östberg, Johan. see Delshammar, Tim Öxell, Cecelia. see Delshammar, Tim Paz, Maria. see Gilman, Edward F.
Persad, Anand B. (and P.C. Tobin), Evaluation of ash tree symptoms associated with emerald ash borer infestation in urban forests, 103
pests and pest control emerald ash borer, 103, 270 southern pine beetle, 88 vulnerability in urban forest, 26
pine (Pinus spp.) southern pine beetle, 88
pine beetles, southern, 88
Pinus spp. (pine) southern pine beetle, 88
planting configuration and residential structure shade, 208
planting depth effect on health and anchorage, 75 effects on root architecture and landscape performance in magnolia, 260
planting programs, tree long-term benefits, 324
Platanus spp. (sycamore)
leaf-gas exchange in urban street sites, 113

crop

pruning
effects on growth and structure, 11
effects on strain in wind, 3
root, 75
severity and aspect ratio, 69

delinquent

public health
spatial variation of allergenic tree pollen in cities, 57

discussion

public opinion
urban tree and ecosystem disservices, 187

Quercus spp. (oak)
leaf-gas exchange in urban street sites, 113

Roloff, Andreas. see Gillner, Sten Roman, Lara A. see Locke, Dexter H.

root architecture
and container retention time, 146
effects of root ball shaving and planting depth on magnolia, 260
influence of container porosity and root pruning, 155

root balls
effects of wire basket retention, 18

root pruning
effects on root architecture and landscape performance in magnolia, 260
influence on root architecture and anchorage, 155

roots
locating with ground-penetrating radar, 245

Ryder, C.M. (and G.M. Moore), The arboricultural and economic benefits of formative pruning street trees see also Moore, G.M Sadoff, Clifford S. see Hughes, Gabriel P.

sample size
street trees, 346
Schwartzberg, Lora. see Dampier, Jason E.E.

shade
influence of planting configuration, 208

Slater, Duncan (and R. Ennos), The level of occlusion of included bark affects the strength of bifurcations in hazel (Corylus avellana L.), 194

Somers, Greg L. see Chappelka, Arthur H. Storer, Andrew J. see Clark, Rachel E.

street trees
simple sampling, 346

Strom, B.L. (and W.K. Oldland, J.R. Meeker, and J. Dunn), Evaluation of general-use insecticides for preventing host colonization by New Jersey southern pine beetle, 88

Sweden
urban tree and ecosystem disservices, 187

Swietenia spp. (mahogany)
influence of container porosity and root pruning, 155

Sycamore (Platanus spp.)
leaf-gas exchange in urban street sites, 113

Thomas, Valerie A. see Hwang, Won Hoi

tilia spp. (linden)
leaf-gas exchange in urban street sites, 113

Tobin, Patrick C. see Persad, Anand B.

tree appraisal methods
Trunk Formula Method, 279

tree inventories
crew size efficiency, 223
management and planning tool, 233

trees
allergenic, 57
long-term benefits of planting programs, 324
maintenance costs, 293
sentinel, 125

Trunk Formula Method
field precision analysis, 279

Tsuga spp. (hemlock)
T. chinensis vs. T. canadensis, 41

Ulmus spp. (elm)
effect of mulch, root pruning, and planting depth, 75
impacts of container retention time on root architecture, 146

urban forests
costs of maintaining and not maintaining, 293
delimiting invasive borers, 125
pest vulnerability, 26
symptoms associated with EAB, 103
tree inventories as management and planning tool, 233

urban landscapes
enhanced by nonnative, noninvasive woody species, 173

urban trees
ecosystem disservices, 187
influence of planting configuration on residential shade, 208
leaf-gas exchange in five species, 113
spatial variation of allergenic tree pollen in cities, 57

urbanization
and tree species and composition, 136

vapor pressure
maple response to reduced irrigation in semi-arid climate, 334

Vecht, Jennifer Vander (and T.M. Conway), Comparing species composition and planting trends: Exploring pest vulnerability in Toronto’s urban forest, 26

Vogt, Jess (and R.J. Hauer and B.C. Fischer), The costs of maintaining and not maintaining the urban forest: A review of the urban forestry and arboriculture literature, 293

Walton, Jeffrey T. see Nowak, David J. Weinberger, Kate R. (and P.L. Kinney and G.S. Lovasi), A review of spatial variation of allergenic tree pollen within cities, 57

wire baskets
effects of retention and removal, 18

Wiseman, P. Eric. see Hwang, Won Hoi