

Supporting Information

Table S1 List of tree species and their respective families found in all 51 monitoring plots. Summaries are presented for mean (\pm SE) diameter at breast height (cm), the percentage of trees of each species out of all trees of all species (dominance), polyphagous shot hole borer (PSHB) breeding host or not, the percentage of trees that were infested by PSHB, the percentage increase of infested trees from sampling period 1–4, and the percentage increase in the number of holes from sampling period 1–4

Species	Family	Diameter (cm)	Dominance (%)	Breeding host	No. infested trees (%)	Increase in infested trees (%)	Increase in no. holes (%)
<i>Acacia mearnsii</i> *	Fabaceae	2.33 (1.73)	0.18	No	0	0	0
<i>Acacia melanoxylon</i> *	Fabaceae	18.56 (1.41)	0.12	No	0	0	0
<i>Acokanthera oppositifolia</i>	Apocynaceae	1.14 (1)	0.06	No	0	0	0
<i>Afrocanthium mundianum</i>	Rubiaceae	8.78 (7.55)	3.39	No	0	0	0
<i>Afrocarpus falcatus</i>	Podocarpaceae	28.01 (8.89)	4.70	Yes	10.84	22.22	74.78
<i>Allophylus decipiens</i>	Sapindaceae	7.37 (1)	0.06	No	0	0	0
<i>Apodytes dimidiata</i>	Icacinaceae	22.35 (3.46)	0.71	No	0	0	0
<i>Buddleja saligna</i>	Scrophulariaceae	11.24 (5.57)	1.84	No	0	0	0
<i>Burchellia bubalina</i>	Rubiaceae	4.86 (9.64)	5.53	No	1.20	100	100
<i>Canthium inerme</i>	Rubiaceae	10.16 (4.24)	1.07	No	1.20	0	0
<i>Carissa bispinosa</i>	Apocynaceae	2.67 (2.45)	0.36	No	0	0	0
<i>Cassine peragua</i>	Celastraceae	8.97 (2.65)	0.42	No	0	0	0
<i>Cassine schinoides</i>	Celastraceae	7.95 (1)	0.06	No	0	0	0
<i>Celtis africana</i>	Cannabaceae	8.95 (1.41)	0.12	No	0	0	0
<i>Chionanthus foveolatus</i>	Oleaceae	2.38 (1.41)	0.12	No	0	0	0
<i>Clutia pulchella</i>	Peraceae	3.20 (9.95)	5.89	No	0	0	0
<i>Crassula ovata</i>	Crassulaceae	5.80 (2.24)	0.30	No	0	0	0
<i>Cunonia capensis</i>	Cunoniaceae	15.27 (2.45)	0.36	No	0	0	0
<i>Curtisia dentata</i>	Curtisiaceae	17.28 (3.61)	0.77	No	0	0	0
<i>Diospyros dichrophylla</i>	Ebenaceae	11.98 (6.08)	2.20	No	0	0	0
<i>Diospyros glabra</i>	Ebenaceae	4.02 (8.19)	3.98	Yes	20.48	35.29	44.5
<i>Diospyros whyteana</i>	Ebenaceae	10.76 (4.24)	1.07	No	1.20	100	100
<i>Dovyalis rhamnoides</i>	Flacourtiaceae	2.54 (1)	0.06	No	0	0	0
<i>Ekebergia capensis</i>	Meliaceae	23.37 (3.74)	0.83	No	3.61	0	20
<i>Elaeodendron croceum</i>	Celastraceae	10.63 (4.80)	1.37	No	0	0	0
<i>Ficus burtt-davyi</i>	Moraceae	8.29 (1.73)	0.18	No	0	0	0
<i>Ficus sur</i>	Moraceae	8.12 (2.24)	0.30	No	0	0	0
<i>Euryops virgineus</i>	Asteraceae	5.18 (1.41)	0.12	No	0	0	0
<i>Gardenia thunbergia</i> **	Rubiaceae	2.92 (1.00)	0.06	No	0	0	0

<i>Gonioma kamassi</i>	Apocynaceae	8.34 (4.36)	1.13	No	0	0	0
<i>Gymnosporia buxifolia</i>	Celastraceae	6.87 (9.70)	5.59	Yes	8.43	71.43	21.43
<i>Halleria lucida</i>	Stilbaceae	9.41 (7.00)	2.91	Yes	15.66	23.08	79.22
<i>Harpephyllum caffrum</i>	Anacardiaceae	30.17 (1.41)	0.12	No	0	0	0
<i>Ilex mitis</i>	Aquifoliaceae	18.37 (3.87)	0.89	No	0	0	0
<i>Kiggelaria africana</i>	Achariaceae	12.70 (2.65)	0.42	No	0	0	0
<i>Maytenus acuminata</i>	Celastraceae	1.91 (1.00)	0.06	No	0	0	0
<i>Maytenus peduncularis</i>	Celastraceae	1.91 (1.00)	0.06	No	0	0	0
<i>Mystroxydon aethiopicum</i>	Celastraceae	2.23 (1.00)	0.06	No	0	0	0
<i>Nuxia floribunda</i>	Stilbaceae	21.31 (7.21)	3.09	No	6.02	40	13.33
<i>Ochna arborea</i>	Ochnaceae	5.01 (2.83)	0.48	No	0	0	0
<i>Ocotea bullata</i>	Ochnaceae	24.30 (7.28)	3.15	No	0	0	0
<i>Olea capensis</i> subsp. <i>macrocarpa</i>	Oleaceae	10.06 (7.00)	2.91	No	0	0	0
<i>Olinia ventosa</i>	Penaeaceae	17.60 (3.00)	0.54	No	1.20	0	0
<i>Osteospermum moniliferum</i>	Asteraceae	2.39 (2.00)	0.24	No	0	0	0
<i>Pinus pinaster</i> *	Pinaceae	2.16 (1.00)	0.06	No	0	0	0
<i>Pittosporum viridiflorum</i>	Pittosporaceae	8.20 (2.24)	0.30	No	0	0	0
<i>Platylophus trifolius</i>	Cunoniaceae	27.77 (3.46)	0.71	No	0	0	0
<i>Podocarpus latifolius</i>	Podocarpaceae	8.00 (8.72)	4.52	No	0	0	0
<i>Polygala myrtifolia</i>	Polygalaceae	3.23 (3.74)	0.83	No	0	0	0
<i>Pterocelastrus tricuspidatus</i>	Celastraceae	13.81 (5.83)	2.02	No	0	0	0
<i>Quercus robur</i> *	Fagaceae	61.86 (2.65)	0.42	Yes	4.82	50	75
<i>Rapanea melanophloeos</i>	Primulaceae	10.40 (17.86)	18.97	No	8.43	14.29	26.53
<i>Rhamnus prinoides</i>	Rhamnaceae	3.70 (3.16)	0.59	No	0	0	0
<i>Rhoicissus tomentosa</i>	Vitaceae	4.14 (2.00)	0.24	No	0	0	0
<i>Robsonodendron eucleiforme</i>	Celastraceae	10.50 (2.45)	0.36	No	0	0	0
<i>Rothmannia capensis</i>	Rubiaceae	7.65 (3.32)	0.65	No	0	0	0
<i>Scolopia mundii</i>	Salicaceae	2.23 (1.00)	0.06	No	0	0	0
<i>Scutia myrtina</i>	Rhamnaceae	7.84 (3.32)	0.65	No	1.20	100	100
<i>Searsia chirindensis</i>	Anacardiaceae	21.90 (3.32)	0.65	No	2.41	0	0
<i>Searsia lucida</i>	Anacardiaceae	7.83 (6.00)	2.14	No	2.41	100	100
<i>Searsia pallens</i>	Anacardiaceae	25.43 (1.00)	0.06	No	0	0	0
<i>Sideroxylon inerme</i>	Sapotaceae	15.37 (2.00)	0.24	No	0	0	0
<i>Sparmannia africana</i>	Malvaceae	3.60 (2.83)	0.48	Yes	3.61	33.33	6.67
<i>Syzygium cordatum</i> **	Myrtaceae	6.79 (2.00)	0.24	No	0	0	0
<i>Trichocladus crinitus</i>	Hamelidaceae	3.98 (10.20)	6.18	No	0	0	0
<i>Trimeria grandifolia</i>	Flacourtiaceae	9.26 (2.00)	0.24	No	0	0	0
<i>Vepris lanceolata</i>	Rutaceae	16.38 (3.00)	0.54	Yes	2.41	50	98.08
<i>Virgilia oroboides</i>	Fabaceae	12.79 (4.12)	1.01	No	4.82	50	61.54

*exotic to South Africa; **exotic to research area.

Table S2 All tree species found in 10 polyphagous shot hole borer (PSHB) monitoring plots set out at the George Botanical Garden's. Presented is the dominance (% of all trees encountered), the number of trees infested with PSHB (% of infested trees of that species), and the average diameter at breast height (cm) of each species encountered

Species	Dominance (%)	No. infested trees	% trees infested	Diameter (cm)
<i>Burchellia bubalina</i>	1.18	0	0	2.52
<i>Clutia pulchella</i>	20.33	0	0	3.13
<i>Cunonia capensis</i>	0.24	0	0	16.24
<i>Diospyros glabra</i>	15.84	17	25.4	4.02
<i>Gymnosporia buxifolia</i>	1.89	0	0	3.31
<i>Halleria lucida</i>	4.02	10	58.8	6.60
<i>Kiggelaria africana</i>	0.24	0	0	2.01
<i>Nuxia floribunda</i>	0.24	1	100	19.23
<i>Olinia ventosa</i>	0.24	1	100	19.36
<i>Rapanea melanophloeos</i>	52.96	6	2.7	9.09
<i>Rhamnus prinoides</i>	1.18	0	0	3.34
<i>Searsia chirindensis</i>	1.42	1	16.7	11.98
<i>Trimeria grandifolia</i>	0.24	0	0	1.43

Table S3 Test table showing sample size (n), χ^2 statistic, P, and Yates correction P for the preferential colonization of polyphagous shot hole borer between tree species

Species	Observed infected (%)	Expected infected (%)	Expected by chance	n	χ^2	Yates corrected P
<i>Afrocarpus falcatus</i>	31	16	Higher	29	6.258	0.020
<i>Burchellia bubalina</i>	4	15	Lower	26	7.037	0.016
<i>Canthium inerme</i>	10	10	Same	10	0	0.45
<i>Diospyros glabra</i>	26	16	Same	65	3.014	0.12
<i>Diospyros whyteana</i>	33	21	Higher	3	7.812	0.009
<i>Ekebergia capensis</i>	30	10	Higher	10	12.5	0.001
<i>Gymnosporia buxifolia</i>	10	14	Same	71	0.758	0.51
<i>Halleria lucida</i>	46	14	Higher	28	24.381	<0.001
<i>Nuxia floribunda</i>	16	13	Same	32	0.038	1
<i>Olinia ventosa</i>	20	25	Same	5	0.717	0.50
<i>Quercus robur</i>	67	14	Higher	6	58.284	<0.001
<i>Rapanea melanophloeos</i>	3	14	Lower	243	7.779	0.011
<i>Scutia myrtina</i>	14	14	Same	7	0	0.45
<i>Searsia chirindensis</i>	25	14	Same	8	3.854	0.074
<i>Searsia lucida</i>	8	15	Same	26	2.407	0.18
<i>Sparrmannia africana</i>	43	14	Higher	7	20.636	<0.001
<i>Vepris lanceolata</i>	33	17	Higher	6	6.827	0.014
<i>Virgilia oroboides</i>	25	13	Higher	16	4.678	0.047