

APPENDIX A.

TABLE A1.

Description of study sites, observed species, and conducted years of survey. AS: Ashiu forest; NH: Kuchibuto mountain in Nihonmatsu; OG: Ogawa Forest Reserve; SD: Sado forest station; TZ: Tanzawa mountain; TR: Kaminakawa forest station in Tsuruoka.

Site	Location	Deer	<i>Weigela</i>	<i>Rhododendron</i>	<i>Menziesia</i>	<i>Viburnum</i>	<i>Hydrangea</i>	Year
AS	N 35.34° E 135.76°	Browsed	<i>hortensis</i> 60-80	<i>kaempferi</i> 30-40	<i>ciliicalyx</i> 30-40	<i>plicatum</i> 60-80	<i>serrate</i> 40-50	2012-14
NH	N 37.60° E 140.60°	Absent	-	<i>kaempferi</i> 40-50	-	-	<i>serrate</i> 40-50	2013
OG	N 36.94° E 140.59°	Absent	-	<i>kaempferi</i> 40-50	-	<i>wrightii</i> 50-70	<i>serrata</i> 50-70	2013-14
SD	N 38.21° E 138.41°	Absent	<i>hortensis</i> 60-80	<i>molle</i> subsp. <i>japonicum</i> 30-40	<i>multiflora</i> 30-40	<i>wrightii</i> 50-70	<i>serrata</i> var. <i>megacarpa</i> 50-70	2012-14
TZ	N 35.43° E 139.20°	Browsed	<i>coraeensis</i> 60-70	<i>kaempferi</i> 30-40	-	<i>wrightii</i> 50-70	-	2013-14
TR	N 38.55° E 139.86°	Absent	<i>hortensis</i> 70-90	<i>kaempferi</i> 30-40	-	<i>plicatum</i> 50-70	-	2014

Notes: Values under the species name indicate the range of density (number of individuals per 1 *ha*) of each species.

TABLE A2.

List of seed plant species recorded in the vegetation survey in six sites. Species in bold letters are defined as autumn-flowering herbaceous plants. Coverage indicates the relative value of coverage, which was calculated by adding up the percentages of coverage collected from 20 plots at each site. T: tree, S: shrub, H: herb, V: vine. See Table A1 for abbreviations of sites.

Family	Species	Coverage						Life form
		AS	NH	OG	SD	TZ	TR	
Aceraceae	<i>Acer amoenum</i>			1				T
	<i>Acer capillipes</i>		6					T
	<i>Acer cissifolium</i>			1				T
	<i>Acer distylum</i>			5				T
	<i>Acer japonicum</i>				5			T
	<i>Acer micranthum</i>	4				2		T
	<i>Acer mono</i>		40	2	38	1	12	T
	<i>Acer nipponicum</i>	12						T
	<i>Acer palmatum</i>				12			T
	<i>Acer rufinerve</i>		1	17		3		T
Actinidiaceae	<i>Actinidia arguta</i>		7					V
	<i>Actinidia polygama</i>	2	5		17			V
Anacardiaceae	<i>Rhus javanica</i>						5	T
Apiaceae	<b><i>Angelica polymorpha</i></b>			<b>1</b>				<b>H</b>
	<b><i>Angelica pubescens</i></b>				<b>35</b>		<b>30</b>	<b>H</b>
	<b><i>Cryptotaenia canadensis</i></b>			<b>11</b>	<b>1</b>			<b>H</b>
	<b><i>Hydrocotyle maritima</i></b>	<b>54</b>		<b>1</b>	<b>5</b>	<b>2</b>		<b>H</b>
	<b><i>Sanicula chinensis</i></b>			<b>6</b>			<b>15</b>	<b>H</b>
Aquifoliaceae	<i>Ilex crenata</i>	3			10	16		S
Araceae	<i>Arisaema amurense</i>				5			H
	<i>Arisaema ovale Nakai</i>	12						H
	<i>Arisaema serratum</i>		5	7		11		H
Araliaceae	<i>Acanthopanax sciadophylloides</i>		15	1				T
	<i>Aralia cordata</i>				26		35	H

	<i>Aralia elata</i>					16	T	
	<i>Hydrocotyle sibthorpioides</i>				5		H	
	<i>Kalopanax septemlobus</i>	1	5	1			T	
	<i>Panax japonicus</i>			6			H	
Asparagaceae	<i>Hosta montana</i>				2		H	
	<i>Hosta sieboldii</i>		66				H	
Asteraceae	<i>Adenocaulon himalaicum</i>		1	6		50	H	
	<i>Ainsliaea acerifolia</i> var. <i>subapoda</i>			14			H	
	<i>Ainsliaea apiculata</i>					1	H	
	<i>Artemisia indica</i>				20	15	H	
	<i>Aster ageratoides</i> ssp. <i>leiophyllus</i>			16			H	
	<i>Aster glehni</i> var. <i>hondoensis</i>				22		H	
	<i>Aster microcephalus</i> var. <i>ovatus</i>		15		21	31	H	
	<i>Aster yomena</i>		55			7	1	H
	<i>Bidens frondosa</i>						5	H
	<i>Cacalia delphiniifolia</i>			11			20	H
	<i>Cacalia farfaraefolia</i>			45				H
	<i>Cacalia nikomontana</i>			26				H
	<i>Cacalia yatabei</i>			36				H
	<i>Cirsium nipponicum</i>				20		30	H
	<i>Cirsium nipponicum</i> var. <i>incomptum</i>			5				H
	<i>Cirsium tenuipedunculatum</i>					13		H
	<i>Cirsium yezoense</i>						10	H
	<i>Conyza bonariensis</i>				1			H
	<i>Erigeron annuus</i>				5			H
	<i>Erigeron philadelphicus</i>				1		1	H
	<i>Eupatorium chinense</i>				25		10	H
	<i>Gnaphalium affine</i>					2		H
	<i>Ixeris japonica</i>					7		H
	<i>Lactuca raddeana</i>						10	H
	<i>Ligularia dentata</i>					5		H
	<i>Ligularia fischerii</i>			20				H
	<i>Parasenecio delphiniifolius</i>				10			H
	<i>Parasenecio farfarifolius</i>						5	H
	<i>Parasenecio nikomontanus</i>	5	10		25			H

	<b><i>Pertya robusta</i></b>			<b>15</b>				<b>H</b>
	<b><i>Pertya triloba</i></b>			<b>5</b>				<b>H</b>
	<i>Petasites japonicus</i>		21				21	H
	<b><i>Prenanthes acerifolia</i></b>			<b>6</b>				<b>H</b>
	<b><i>Senecio cannabifolius</i></b>				<b>25</b>		<b>20</b>	<b>H</b>
	<b><i>Solidago virgaurea</i></b>	<b>1</b>	<b>2</b>				<b>5</b>	<b>H</b>
	<b><i>Youngia denticulata</i></b>		<b>1</b>		<b>30</b>			<b>H</b>
Balsaminaceae	<b><i>Impatiens textori</i></b>			<b>5</b>			<b>121</b>	<b>H</b>
	<b><i>Impatiens noli-tangere</i></b>						<b>50</b>	<b>H</b>
Betulaceae	<i>Alnus fauriei</i>						10	T
	<i>Alnus hirsuta</i>					1		T
	<i>Alnus sieboldiana</i>				1			T
	<i>Betula grossa</i>	6	5			3		T
	<i>Carpinus cordata</i>					1	5	T
	<i>Carpinus laxiflora</i>	10				4	20	T
Boraginaceae	<b><i>Trigonotis brevipes</i></b>	<b>2</b>						<b>H</b>
Brassicaceae	<i>Cardamine leucantha</i>						10	H
Buddlejaceae	<i>Buddleja japonica</i>					10		S
Buxaceae	<i>Pachysandra terminalis</i>				5			S
Campanulaceae	<b><i>Adenophora remotiflora</i></b>			<b>10</b>				<b>H</b>
	<b><i>Adenophora triphylla</i></b>		<b>5</b>		<b>5</b>			<b>H</b>
	<b><i>Campanula punctata</i></b>		<b>5</b>					<b>H</b>
Cannabaceae	<b><i>Humulus japonicus</i></b>					<b>1</b>		<b>H</b>
Caprifoliaceae	<i>Lonicera gracilipes</i>		25	24				S
	<i>Lonicera morrowii</i>				1			S
	<b><i>Patrinia villosa</i></b>		<b>1</b>		<b>6</b>		<b>15</b>	<b>H</b>
	<i>Sambucus racemosa</i>		10	5				S
	<i>Viburnum furcatum</i>				5			S
	<i>Viburnum plicatum</i>		25	81		1	50	S
	<i>viburnum wrightii</i>		5	5				S
	<i>Weigela hortensis</i>				227		150	S
Caryophyllaceae	<b><i>Lychnis sieboldii</i></b>			<b>10</b>				<b>H</b>
	<b><i>Stellaria diversiflora</i></b>	<b>1</b>						<b>H</b>
Celastraceae	<i>Celastrus orbiculatus</i>			1				V
	<i>Euonymus japonicus</i>			11				V

	<i>Euonymus oxyphyllus</i>		11	5			15	S
	<i>Euonymus sieboldianus</i>			15				S
Cephalotaxaceae	<i>Cephalotaxus harringtonia</i>				15			S
Cercidiphyllaceae	<i>Cercidiphyllum japonicum</i>						25	T
Chloranthaceae	<i>Chloranthus serratus</i>			22		18		H
Clethraceae	<i>Clethra barbinervis</i>	12	10		10		30	T
Commelinaceae	<b><i>Commelina communis</i></b>						<b>10</b>	<b>H</b>
Crassulaceae	<b><i>Phedimus aizoon</i> var. <i>floribundus</i></b>				7			<b>H</b>
Cupressaceae	<i>Chamaecyparis obtusa</i>					1		T
Cyperaceae	<i>Carex dolichostachya</i> var. <i>glaberrima</i>			14				H
	<i>Carex foliosissima</i>			6				H
	<i>Carex multifolia</i>	5			15		5	H
	<i>Scirpus wichurae</i>				1			H
Daphniphyllaceae	<i>Daphniphyllum macropodum</i> var. <i>humile</i>				7			S
Diapensiaceae	<i>Schizocodon soldanelloides</i>				6			H
	<i>Shortia uniflora</i>	1						H
Dioscoreaceae	<i>Dioscorea japonica</i>		1			2	5	H
Dioscoreaceae	<i>Dioscorea tokoro</i>		1					H
Elaeagnaceae	<i>Elaeagnus umbellata</i>				15			S
Ericaceae	<i>Elliottia paniculata</i>						20	S
	<i>Leucothoe grayana</i>				10		10	S
	<i>Menziesia ciliicalyx</i>	1	15					S
	<i>Menziesia multiflora</i>				10		10	S
	<b><i>Pyrola japonica</i></b>		<b>1</b>					<b>H</b>
	<i>Rhododendron brachycarpum</i>				40			S
	<i>Rhododendron molle</i>				46			S
	<i>Rhododendron kaempferi</i>		100	5			20	S
Euphorbiaceae	<i>Euphorbia sieboldiana</i>					5		H
Fabaceae	<b><i>Amphicarpaea bracteata</i></b>						<b>10</b>	<b>H</b>
	<b><i>Desmodium podocarpum</i></b>			<b>1</b>			<b>26</b>	<b>H</b>
	<i>Pueraria lobata</i>						120	V
	<b><i>Trifolium pratense</i></b>		<b>1</b>		<b>1</b>			<b>H</b>
	<b><i>Trifolium repens</i></b>				<b>2</b>			<b>H</b>
	<i>Wisteria floribunda</i>		36	12		1	11	V
Fagaceae	<i>Castanea crenata</i>		1	0				T

	<i>Castanea crenata</i>				73			H
	<i>Fagus crenata</i>	2		80				T
	<i>Quercus crispula</i>	3	1		5			T
	<i>Quercus serrata</i>		1	1		1		T
Garryaceae	<i>Aucuba japonica</i>	1						S
Gentianaceae	<b><i>Swertia japonica</i></b>				<b>1</b>			<b>H</b>
	<b><i>Tripterospermum japonicum</i></b>		<b>1</b>		<b>1</b>			<b>H</b>
Geraniaceae	<b><i>Geranium thunbergii</i></b>		<b>7</b>		<b>8</b>	<b>1</b>	<b>6</b>	<b>H</b>
Guttiferae	<b><i>Hypericum erectum</i></b>				<b>2</b>	<b>1</b>	<b>1</b>	<b>H</b>
Hippocastanaceae	<i>Aesculus turbinata</i>						15	T
Hydrangeaceae	<i>Hydrangea serrata</i> var. <i>megacarpa</i>				456		65	S
	<i>Hydrangea serrata</i>	15	115	30				S
	<i>Hydrangea hirta</i>	15						S
	<i>Hydrangea involucrata</i>			65		22		S
	<i>Hydrangea petiolaris</i>	4		5				V
	<i>Schizophragma hydrangeoides</i>	14					5	V
Illiciaceae	<i>Illicium anisatum</i>					5		S
Jaglandaceae	<i>Pterocarya rhoifolia</i>						15	T
Juncaceae	<i>Juncus effusus</i>	110						H
Lamiaceae	<i>Callicarpa japonica</i>		40				10	S
	<b><i>Clinopodium chinense</i></b>				<b>4</b>			<b>H</b>
	<b><i>Clinopodium micranthum</i></b>	<b>5</b>			<b>9</b>			<b>H</b>
	<b><i>Elsholtzia ciliata</i></b>		<b>5</b>		<b>6</b>			<b>H</b>
	<b><i>Glechoma hederacea</i></b>						<b>5</b>	<b>H</b>
	<b><i>Isodon inflexus</i></b>		<b>1</b>					<b>H</b>
	<b><i>Isodon trichocarpus</i></b>				<b>10</b>		<b>40</b>	<b>H</b>
	<b><i>Isodon umbrosus</i></b>						<b>15</b>	<b>H</b>
	<b><i>Leucosceptrum japonicum</i></b>						<b>5</b>	<b>H</b>
	<i>Meehania urticifolia</i>			1				H
	<b><i>Mosla punctulata</i></b>					<b>5</b>	<b>26</b>	<b>H</b>
	<i>Prunella vulgaris</i>				12			H
	<b><i>Salvia lutescens</i> var. <i>crenata</i></b>			<b>30</b>				<b>H</b>
	<b><i>Salvia nipponica</i></b>			<b>99</b>			<b>10</b>	<b>H</b>
Lardizabalaceae	<i>Akebia quinata</i>		10					V
	<i>Akebia trifoliata</i>		38	6				V

Lauraceae	<i>Lindera umbellata</i>					1		S
	<i>Lindera umbellate</i>				14		1	S
Liliaceae	<b><i>Cardiocrinum cordatum</i></b>				<b>5</b>		<b>10</b>	<b>H</b>
	<b><i>Cardiocrinum cordatum</i></b>				<b>5</b>			<b>H</b>
	<i>Paris tetrphylla</i>	1		6	1			H
	<i>Smilacina japonica</i>		21	14	6			H
	<b><i>Tricyrtis affinis</i></b>	<b>3</b>		<b>6</b>		<b>1</b>		<b>H</b>
	<i>Trillium smallii</i>		5		5			H
	<b><i>Veratrum album</i></b>			<b>1</b>				<b>H</b>
Menispermaceae	<b><i>Menispermum dauricum</i></b>						<b>5</b>	<b>H</b>
Moraceae	<i>Morus australis</i>					1	20	T
Oleaceae	<i>Fraxinus lanuginosa</i>				5			T
	<i>Ligustrum Tschonokii</i>				1			S
Onagraceae	<b><i>Circaea erubescens</i></b>			<b>5</b>				<b>H</b>
	<b><i>Epilobium pyrricholophum</i></b>					<b>1</b>		<b>H</b>
Orchidaceae	<i>Calanthe reflexa</i>	1						H
	<i>Cremastra unguiculata</i>	1						H
	<i>Goodyera repens</i>			1				H
	<i>Cremastra appendiculata</i>				5			H
Orobanchaceae	<b><i>Pedicularis resupinata var. caespitosa</i></b>				<b>9</b>			<b>H</b>
Oxalidaceae	<b><i>Oxalis corniculata</i></b>	<b>1</b>						<b>H</b>
	<b><i>Oxalis griffithii</i></b>	<b>10</b>					<b>5</b>	<b>H</b>
Parnassiaceae	<b><i>Parnassia palustris</i></b>					<b>1</b>		<b>H</b>
Pentaphragaceae	<i>Eurya japonica</i>	1						S
Phrymaceae	<b><i>Phryma leptostahya</i></b>						<b>5</b>	<b>H</b>
Plantaginaceae	<i>Plantago asiatica</i>	1	1			1	1	H
	<b><i>Pseudolysimachion kiusianum</i></b>				<b>1</b>			<b>H</b>
	<b><i>Veronicastrum sibiricum</i></b>				<b>5</b>			<b>H</b>
Poaceae	<i>Microstegium vimineum</i>	5	7		41	88	2	H
	<i>Miscanthus sinensis</i>		20		36	50	45	H
	<i>Oplismenus undulatifolius</i>					4		H
	<i>Pennisetum alopecuroides</i>						5	H
	<i>Sasa nipponica</i>			23				H
	<i>Sasa palmata</i>		62				15	H
Polygonaceae	<b><i>Persicaria debilis</i></b>			<b>7</b>				<b>H</b>

	<i>Persicaria filiformis</i>		21	60			15	H
	<i>Persicaria longiseta</i>	6	11		15		1	H
	<i>Persicaria nepalensis</i>						16	H
	<i>Persicaria sieboldi</i>	1						H
	<i>Persicaria thunbergii</i>		5	112	45		35	H
	<i>Polygonum caespitosum</i>				1			H
	<i>Polygonum sachalinense</i>				6		41	H
	<i>Rumex acetosa</i>	5						H
Primulaceae	<i>Lysimachia clethroides</i>		10					H
Ranunculaceae	<i>Aconitum sanyoense</i>	30	1					H
	<i>Aconitum japonicum var. montanum</i>			20	10	1	20	H
	<i>Anemone flaccida</i>		1	1				H
	<i>Aquilegia buergeriana</i>				16			H
	<i>Cimicifuga acerina</i>			16				H
	<i>Cimicifuga simplex</i>				45			H
	<i>Clematis stans</i>				1			H
	<i>Dichocarpum trachyspermum</i>			3				H
	<i>Glaucidium palmatum</i>				25			H
	<i>Ranunculus japonicus</i>						1	H
	<i>Ranunculus silerifolius</i>			26		1		H
	<i>Ranunculus silerifolius</i>		50					H
Rhamnaceae	<i>Berchemia racemosa</i>		5					S
Rosaceae	<i>Agrimonia pilosa Agrimonia</i>	1	16				20	H
	<i>Filipendula camtschatica</i>				5			H
	<i>Filipendula multijuga</i>		26					H
	<i>Kerria japonica</i>		116	10				S
	<i>Potentilla fragarioides</i>				4			H
	<i>Potentilla hebiichigo</i>						1	H
	<i>Prunus grayana</i>		10	6				T
	<i>Prunus jamasakura.</i>		15					T
	<i>Rubus crataegifolius</i>		30	20	94		16	S
	<i>Rubus hirsutus</i>				6			H
	<i>Rubus palmatus var. palmatus</i>	3	25	8	15			S
	<i>Rubus phoenicolasius</i>						1	H
	<i>Sorbus commixta</i>				16			T





	<b><i>Pilea japonica</i></b>					<b>71</b>		<b>H</b>
	<i>Pilea pumila</i>				1			H
Valerianaceae	<b><i>Patrinia gibbosa</i></b>				<b>5</b>			<b>H</b>
Verbenaceae	<i>Clerodendron trichotomum</i>		5					S
Violaceae	<i>Viola bissetii</i>				2			H
	<i>Viola brevistipulata</i>						25	H
	<i>Viola grypoceras</i>	6	3	9	37	2	5	H
	<i>Viola vaginata</i>				6		5	H
Vitaceae	<i>Ampelopsis brevipedunculata</i>				10			V
	<i>Cayratia japonica</i>						40	V

TABLE A3.

Results of a generalized linear mixed model (GLMM) that predicts fruit set of five shrub genera explained by the visit rate of five insect taxa and sea side of the site.

Shrub genus No. sites	Weigela (n = 361) 2 browsed, 2 absent				Rhododendron (n = 261) 2 browsed, 4 absent				Menzesia (n = 105) 1 browsed, 1 absent				Viburnum (n = 179) 2 browsed, 3 absent				Hydrangea (n = 209) 1 browsed, 3 absent			
	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr
B. diversus	0.64	0.12	5.24	***	3.15	1.54	4.85	***	-	-	-	-	-	-	-	-	-	-	-	-
B. hypocrita	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B. ardens	1.79	0.37	4.7	***	0.81	0.33	2.4	*	1.15	0.56	2.05	*	-	-	-	-	-	-	-	-
Apidae	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.32	0.34	3.85	***
Andrenidae	0.11	0.03	3.43	***	-	-	-	-	-	-	-	-	-1.26	0.38	-3.33	***	-	-	-	-
Syrphidae	-	-	-	-	-	-	-	-	-	-	-	-	-0.84	0.31	-2.68	**	0.24	0.13	1.82	0.06
Coleoptera	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.82	0.18	-4.62	***
Sea side	-	-	-	-	-0.42	0.17	-2.50	*	-	-	-	-	1.53	0.88	1.74	0.08	-	-	-	-
Explained Deviance (%)	7.1				2.2				2.7				7.2				9.9			

Notes: Halictidae, Bombyliidae, and Lepidoptera did not affect fruit set of any of the five shrubs. Hyphen (-) means that variables were not selected in the best model. Values in parentheses are sample sizes for each shrub genus. The significance of differences from zero was tested using z-statistics. Explained deviance is calculated as (null deviance - residual deviance) / null deviance. \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001.

TABLE A4.

Results of a generalized linear mixed model (GLMM) that predicts fruit set of five shrub genera explained by the deer presence and latitude of the sites.

Shrub genus	<i>Weigela</i> (n = 361)				<i>Rhododendron</i> (n = 261)				<i>Menzesia</i> (n = 105)				<i>Viburnum</i> (n = 179)				<i>Hydrangea</i> (n = 209)			
	2 browsed, 2 absent				2 browsed, 4 absent				1 browsed, 1 absent				2 browsed, 3 absent				1 browsed, 3 absent			
Variables	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr	Estimate	SE	z	Pr
Deer	-0.31	0.08	-4.14	***	3.34	0.73	-4.59	***	-	-	-	-	0.96	0.55	1.75	0.07	-	-	-	-
Sea side	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explained Deviance (%)	0.52				2.6				-				0.17				-			

Notes: Hyphen (-) means that variables were not selected in the best model. Values in parentheses are sample sizes for each shrub genus.

The significance of differences from zero was tested using z-statistics. Explained deviance calculated as (null deviance - residual deviance)

/ null deviance. \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001.

TABLE A5.

Non-standardized coefficients and standard errors of structural equation models (SEMs) fitted with Maximum Likelihood method for deer on floral resources, pollinator visit frequency, and reproduction of *Weigela*, *Rhododendron*, and *Viburnum* species.

SEM model	Estimate	Std.err	Z-value	P
<b><i>Weigela</i></b>				
Regressions:				
Coverage				
←Deer	-2.04	0.03	-74.3	<0.0001
<i>B. diversus</i>				
←Deer	0.08	0.10	0.79	0.43
←Coverage	0.29	0.05	6.08	<0.0001
<i>B. ardens</i>				
←Deer	-0.13	0.09	-1.41	0.16
←Coverage	-0.13	0.04	-3.01	0.003
Andrenidae				
←Deer	-1.98	0.41	-4.82	<0.0001
←Coverage	-0.36	0.19	-1.87	0.06
Fruit set				
← <i>B. diversus</i>	0.72	0.16	4.42	<0.0001
← <i>B. ardens</i>	-0.03	0.06	-0.40	0.69
←Andrenidae	0.04	0.01	2.53	0.01
←Deer	-0.56	0.12	-4.67	<0.0001
←Coverage	-0.26	0.06	-4.13	<0.0001
<b><i>Rhododendron</i></b>				
Regressions:				
Coverage				
←Deer	-1.63	0.06	-27.8	<0.0001
<i>B. diversus</i>				
←Deer	-0.45	0.09	-5.15	<0.0001
←Coverage	0.17	0.05	3.73	<0.0001
<i>B. ardens</i>				
←Deer	-0.23	0.023	-10.01	<0.0001
←Coverage	-0.04	0.012	-2.91	0.004
Fruit set				
← <i>B. diversus</i>	0.89	0.33	2.71	0.007
← <i>B. ardens</i>	1.65	0.24	6.81	<0.0001
←Deer	-0.09	0.11	-0.84	0.40
←Coverage	-0.03	0.05	-0.50	0.62
<b><i>Viburnum</i></b>				
Regressions:				
Coverage				

←Deer	-1.95	0.03	-58.4	<0.0001
Syrphidae				
←Deer	2.63	0.47	5.57	<0.0001
←Coverage	0.98	0.24	4.15	<0.0001
Andrenidae				
←Deer	-1.02	0.48	-2.12	0.03
←Coverage	-0.29	0.24	-1.21	0.23
Fruit set				
←Syrphidae	-0.08	0.02	-4.26	<0.0001
←Andrenidae	-0.07	0.02	-3.33	0.001

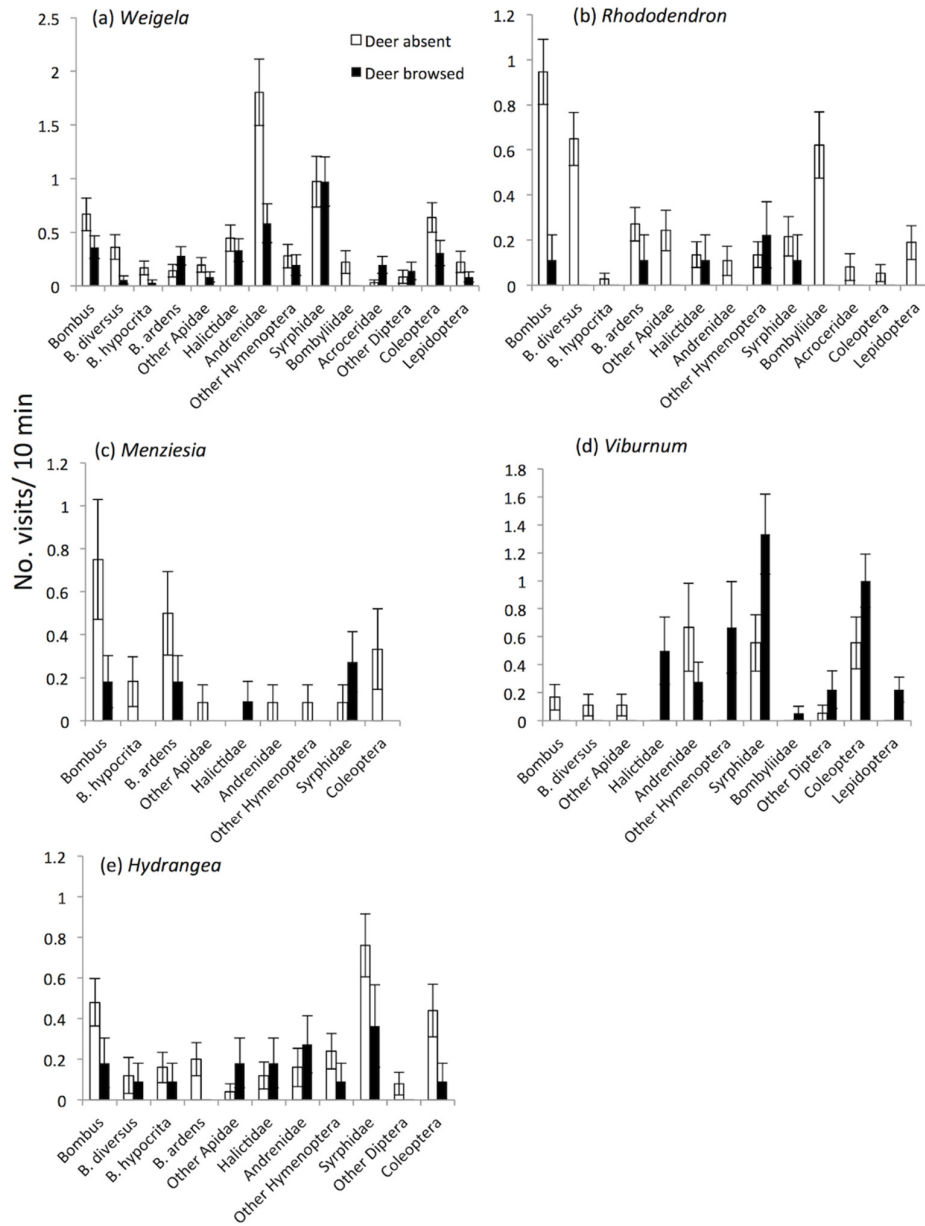


FIG. A1. Visitation rate (number of visits per 10 min) of insects observed on individuals of the five genera of shrubs between deer browsed and absent sites.