



Supplementary Tables

Assessing garden ecosystems in the Fayoum Depression of Egypt: An analysis of plant communities, ecological attributes, non-indigenous species, and biodiversity trends

Supplementary Table 1. List of plant taxa recorded the Fayoum Depression (FD) region, west of the Nile River, 62 miles south of Cairo, Egypt. **Fayoum University Gardens _FUG;** 29°19'15.0"N 30°50'07.6"E (2) Fayoum Plantation International Garden _FIG; 29°19'03.8"N 30°50'02.8"E (3) Fayoum Governorate Club _FGC; 29°19'06.7"N 30°50'29.0"E (4) Fayoum Zoo _FZ.; 29°19'13.8"N 30°51'11.9"E [Life span: Ann = Annual, Per= Perennial. Life form: CR = Cryptophytes, GE = Geophytes, HEL = Helophytes, HEM=Hemicytrophites, PH=Phanerophytes, TH = Therophytes. Chorotypes: American (AM), Australian (AUS), Cosmopolitan (COSM), Euro-Siberian (ES), Irano-Turanian (IT), Mediterranean (ME), Palectropical (PAL), Palectropical (PAN), Saharo-Arabian (SA), Saharo-Sindian (SS) and Tropical (TR)]

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Acanthaceae	<i>Justicia adhatoda</i> L.	0	0	1	1	Hem	SA	Per
	<i>Odontonema cuspidatum</i> (Nees) Kuntze	0	1	0	0	TH	ME	Ann
	<i>Ruellia simplex</i> C.Wright	1	1	1	0	Hem	IT	per
	<i>Sanchezia oblonga</i> Ruiz & Pav.	0	1	0	0	PH	SA	Per
Aizoaceae	<i>Carpobrotus acinaciformis</i> (L.) L.Bolus	1	0	0	0	TH	SA	Per
	<i>Mesembryanthemum cordifolium</i> L.f.	1	0	0	0	TH	SA	Per
	<i>Tetragonia tetragonoides</i> (Pall.) Kuntze	1	0	0	0	PH	SZ	Per
	<i>Trianthema portulacastrum</i> L.	0	0	0	1	TH	SA	Ann
Amaranthaceae	<i>Alternanthera brasiliana</i> (L.) Kuntze	0	1	1	0	TH	COSM	Ann
	<i>Amaranthus viridis</i> L.	0	0	1	1	Hem	COSM	Ann
	<i>Bassia muricata</i> (L.) Asch.	0	0	1	0	PH	SA+IT	Ann
	<i>Chenopodium murale</i> (L.) S.Fuentes, Uotila & Borsch	0	0	0	1	PH	COSM	Ann
Amaryllidaceae	<i>Agapanthus praecox</i> Willd.	1	0	0	0	Hem	IT	Per
	<i>Crinum asiaticum</i> L.	0	0	1	0	Hem	IT	Per
	<i>Crinum bulbispermum</i> (Burm.f.) Milne-Redh. & Schweick.	0	0	0	1	PH	SA	Per
	<i>Hippeastrum striatum</i> (Lam.) H.E.Moore	1	0	0	0	Hem	SA	Per
Anacardiaceae	<i>Mangifera indica</i> L.	1	0	0	0	PH	IT	Per
	<i>Schinus terebinthifolia</i> Raddi	0	1	1	0	PH	TR	Per
	<i>Apocynum cannabinum</i> L.	0	1	0	0	PH	IT	Per
	<i>Cascabela thevetia</i> (L.) Lippold	1	1	1	0	PH	TR	Per
Apocynaceae	<i>Catharanthus coriaceus</i> Markgr.	1	0	0	0	Hem	TR	Per
	<i>Catharanthus roseus</i> (L.) G.Don	1	1	1	0	PH	TR	Per
	<i>Cynanchum acutum</i> L.	1	0	0	0	PH	IT+Neo	Ann
	<i>Nerium oleander</i> L.	1	1	0	0	PH	ME+SA+IT+PAL+PAN	Per
	<i>Plumeria alba</i> L.	0	0	1	0	PH	PAL	Per
	<i>Plumeria obtusa</i> L.	1	0	0	0	PH	COSM	Per
	<i>Plumeria rubra</i> L.	1	1	1	0	PH	AM	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Araceae	<i>Epipremnum aureum</i> (Linden & Andr�© G.S.Bunting	0	1	0	0	HEM	IT	Per
	<i>Monstera deliciosa</i> Liebm.	0	1	1	0	PH	TR+Neo	Per
	<i>Syngonium auritum</i> (L.) Schott	0	0	1	0	PH	TR+Neo	Per
Araliaceae	<i>Heptapleurum actinophyllum</i> (Endl.) Lowry & G.M.Plunkett	0	1	0	0	PH	IT	Per
Arecaceae	<i>Caryota urens</i> L.	0	0	1	0	Hem	IT+SA	Per
	<i>Chrysalidocarpus lutescens</i> H.Wendl.	0	1	1	0	PH	TR	Per
	<i>Phoenix dactylifera</i> L.	1	0	0	1	PH	SA+SZ	per
	<i>Roystonea regia</i> (Kunth) O.F.Cook	1	0	0	0	Hem	IT	Per
	<i>Sabal palmetto</i> (Walter) Lodd. ex Schult. & Schult.f.	0	0	1	0	PH	AM	Ann
	<i>Syagrus romanzoffiana</i> (Cham.) Glassman	1	0	0	0	PH	AM	Ann
	<i>Washingtonia robusta</i> H.Wendl.	1	0	0	0	PH	IT	Bi
Asparagaceae	<i>Washingtonia filifera</i> (Rafarin) H.Wendl. ex de Bary	0	0	0	1	PH	IT	Bi
	<i>Agave americana</i> L.	1	0	0	0	Hem	IT	Per
	<i>Agave sisalana</i> Perrine	1	0	0	0	Hem	IT	Per
	<i>Agave weberi</i> Cels ex Poiss.	1	0	0	0	Hem	SA	Per
	<i>Asparagus horridus</i> L.	1	0	0	0	PH	IT	per
	<i>Cordylone fruticosa</i> (L.) A.Chev.	0	0	0	1	PH	IT	Per
	<i>Dracaena bacularis</i> (Pfenning ex A.Butler & Jankalski) Byng & Christenh.	0	0	1	0	Hem	IT	Ann
	<i>Dracaena ellenbeckiana</i> Engl.	0	0	0	1	TH	SA	Ann
	<i>Dracaena reflexa</i> Lam.	0	1	1	1	PH	AM	Per
	<i>Ruscus hypophyllum</i> L.	0	0	0	1	PH	IT	Per
	<i>Yucca aloifolia</i> L.	1	0	0	0	Hem	SA	Per
Asphodelaceae	<i>Yucca filamentosa</i> L.	0	1	0	0	Hem	SA	Per
	<i>Yucca gigantea</i> Lem.	1	0	1	0	Hem	IT	Per
	<i>Aloe vera</i> (L.) Burm.f.	0	0	0	1	PH	AM	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Asteraceae	<i>Artemisia dracunculus</i> L.	0	1	0	0	PH	EU+ME	Per
	<i>Bidens subalternans</i> DC.	1	0	0	0	PH	AM	Per
	<i>Bidens tripartita</i> L.	1	0	0	0	PH	PAN	Per
	<i>Calendula officinalis</i> L.	0	1	0	0	Hem	ME	Ann
	<i>Centaurea cineraria</i> L.	0	1	0	0	GE	SA	Per
	<i>Centaurea ragusina</i> L.	1	0	0	1	GE	ME	Per
	<i>Erigeron sumatrensis</i> Retz.	1	0	1	0	Hem	PAL	Per
	<i>Euryops chrysanthemoides</i> (DC.) B.Nord.	0	0	1	0	Hem	SA	Per
	<i>Euryops pectinatus</i> Cass.	0	0	0	1	Hem	IT	Per
	<i>Gazania linearis</i> Druce	1	0	0	0	PH	PAL	Per
	<i>Gerbera jamesonii</i> Bolus	1	0	0	0	Hem	SA	Per
	<i>Gerbera leandrii</i> Humbert	1	0	0	0	Hem	SZ	Per
	<i>Pluchea indica</i> Less.	1	0	0	0	PH	AM	Per
	<i>Solidago rugosa</i> Mill.	1	0	0	0	PH	AM	Per
	<i>Tagetes erecta</i> L.	0	1	0	0	PH	AM	Per
	<i>Sphagneticola trilobata</i> (L.) Pruski	0	0	1	0	PH	PAN	Per
	<i>Jacaranda mimosifolia</i> D.Don	1	0	0	1	PH	PAN	Per
	<i>Tecoma stans</i> (L.) Juss. ex Kunth	0	1	1	0	PH	AM+PAN	Per
	<i>Tecomaria capensis</i> (Thunb.) Spach	1	0	0	0	Hem	IT+Me	Per
Bignoniaceae	<i>Cereus hexagonus</i> (L.) Mill.	1	0	0	0	Hem	SA	Per
	<i>Cylindropuntia fulgida</i> (Engelm.) F.M.Knuth	1	0	0	0	PH	SA	Per
	<i>Opuntia microdasys</i> (Lehm.) Pfeiff.	1	0	0	0	PH	SA	Per
	<i>Opuntia stricta</i> (Haw.) Haw.	1	0	0	0	GE	SA	Per
	<i>Selenicereus undatus</i> (Haw.) D.R.Hunt	1	0	0	0	TH	PAN	Per
Campanulaceae	<i>Trachelium caeruleum</i> L.	0	0	1	0	PH	ME+ES	Per
Cannaceae	<i>Canna indica</i> L.	0	0	1	0	PH	PAL+PAN	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Cardiopteridaceae	<i>Citronella costaricensis</i> (Donn.Sm.) R.A.Howard	0	0	1	0	PH	AM+PAN	Per
Casuarinaceae	<i>Casuarina cunninghamiana</i> Miq.	0	0	0	1	PH	AUS	Per
Celastraceae	<i>Celastrus orbiculatus</i> Thunb.	0	1	0	0	HEM	IT+ME	Per
Combretaceae	<i>Conocarpus erectus</i> L.	1	0	1	0	Hem	ME	Per
	<i>Conocarpus lancifolius</i> Engl.	0	1	0	1	Hem	PAL	Per
	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	0	1	0	0	Hem	PAL	Per
Commelinaceae	<i>Tradescantia pallida</i> (Rose) D.R.Hunt	1	0	0	0	PH	AM	Per
Convolvulaceae	<i>Ipomoea batatas</i> (L.) Lam.	1	0	0	0	PH	AM	Per
	<i>Ipomoea cairica</i> (L.) Sweet	1	0	0	1	Hem	ES	Per
	<i>Ipomoea carnea</i> Jacq.	0	0	1	0	Hem	PAL	Per
	<i>Kalanchoe daigremontiana</i> Raym.-Hamet & H.Perrier	1	0	0	0	GE	SA	Per
Crassulaceae	<i>Kalanchoe serrata</i> Mannoni & Boiteau	1	0	0	0	GE	PAL	Ann
Cucurbitaceae	<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai	0	0	1	0	PH	PAL	Ann
	<i>Cupressus dupreziana</i> A.Camus	1	0	0	0	PH	SA	Per
	<i>Cupressus sempervirens</i> L.	1	0	0	0	Hem	ME	Per
	<i>Hesperocyparis lusitanica</i> (Mill.) Bartel	0	0	1	0	PH	ES	Per
	<i>Juniperus sabina</i> L.	1	0	1	0	PH	ME	Per
Cupressaceae	<i>Juniperus virginiana</i> L.	0	1	0	0	PH	AM	Per
	<i>Platycladus orientalis</i> (L.) Franco	0	1	0	0	PH	PAL	Per
	<i>Thuja occidentalis</i> L.	0	1	0	0	PH	IT	Per
Cycadaceae	<i>Cycas revoluta</i> Thunb.	1	0	1	0	CR	PAL+PAN	Per
Cyperaceae	<i>Carex divulsa</i> Stokes	0	1	0	0	Hem	PAN	Per
	<i>Cyperus rotundus</i> L.	0	1	0	1	Hem	PAN	Per
	<i>Portulacaria afra</i> Jacq.	1	0	0	0	Hem	PAL	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Euphorbiaceae	Acalypha wilkesiana Muell.Arg.Muell.Arg.	1	1	1	0	Hem	COSM	Ann
	Euphorbia cotinifolia L.	0	0	1	0	Hem	COSM	Per
	Euphorbia heterophylla L.	0	1	0	1	PH	ME	per
	Euphorbia hirta L.	0	1	1	1	CR	PAN	Per
	Euphorbia lactea Haw.	1	0	0	0	HEM	PAL	Per
	Euphorbia milii Des Moul.	1	1	0	1	GE	SA	Per
	Euphorbia serpens Kunth	0	1	0	0	Hem	AM	Per
	Euphorbia tirucalli L.	0	1	0	0	PH	PAL	Per
	Euphorbia umbellata (Pax) Bruyns	0	0	1	0	HEM	IT	Per
	Jatropha integerrima Jacq.	0	1	1	0	Hem	PAN	Per
	Triadica sebifera Bojer	0	0	0	1	PH	PAN	Per
	Acacia dealbata Link	1	0	0	0	HEM	PAL+PAN	Per
	Alhagi maurorum Medik.	1	0	0	0	PH	ME+SA	Per
	Bauhinia purpurea L.	1	1	0	0	HEM	PAL+PAN	Per
	Cassia fistula L.	1	0	1	0	PH	IT+SZ+SA	Per
Fabaceae	Cassia javanica L.	1	0	0	0	PH	IT	Per
	Dalbergia sissoo Roxb. ex DC.	0	0	0	1	PH	IT+SZ+SA	per
	Delonix regia (Bojer ex Hook.) Raf.	1	0	0	0	PH	TR+ME	Per
	Erythrina herbacea L.	1	0	0	0	HEM	ME+SA	Per
	Lathyrus ochrus (L.) DC.	0	1	0	0	HEL	SA	Per
	Leucaena leucocephala (Lam.) de Wit	1	1	0	0	TH	IT+AM	Ann
	Senna occidentalis (L.) Link	1	1	0	0	TH	AM+SA	Ann
	Senna surattensis (Burm.f.) H.S.Irwin & Barneby	1	0	1	0	PH	IT	Per
	Tipuana tipu (Benth.) Kuntze	1	0	0	0	PH	TR+AM	Per
	Pelargonium graveolens L'H��r.	1	0	0	0	HEM	ME	Per
Geraniaceae	Heliconia stricta Huber	0	0	1	0	PH	PAL	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Lamiaceae	<i>Coleus decurrens</i> Gürke	0	0	1	0	Hem	ES	Per
	<i>Coleus scutellarioides</i> (L.) Benth.L.	0	0	1	0	Hem	ME	Ann
	<i>Lavandula latifolia</i> Medik.	0	0	0	1	Hem	ME	Ann
	<i>Lavandula multifida</i> L.	0	1	0	0	Hem	COSM	Ann
	<i>Ocimum basilicum</i> L.	1	0	0	0	Hem	SA	Per
	<i>Ocimum gratissimum</i> L.	1	0	0	0	Hem	IT	Per
	<i>Ocimum kilimandscharicum</i> Gürke	0	0	1	0	Hem	ES	Per
	<i>Salvia apiana</i> Jeps.	1	0	0	0	PH	AM	Per
	<i>Vitex agnus-castus</i> Stokes	1	0	0	0	GE	ME	Per
	<i>Volkameria inermis</i> L.	1	0	0	0	PH	PAL	Per
	<i>Ocimum americanum</i> L.	0	1	1	1	Hem	AM	Per
Lauraceae	<i>Umbellularia californica</i> (Hook. & Arn.) Nutt.	0	1	0	0	PH	AM	Per
Lythraceae	<i>Punica granatum</i> L.	1	0	0	0	CR	ME	Per
	<i>Alcea biennis</i> Winterl	0	1	1	0	HEM	ES	Per
	<i>Bombax ceiba</i> L.	1	0	0	0	TH	PAL	Ann
	<i>Brachychiton acerifolius</i> (A.Cunn. ex G.Don) F.Muell.	0	0	0	1	Hem	TR+AUS	Per
Malvaceae	<i>Ceiba aesculifolia</i> (Kunth) Britten & Baker f.	1	0	0	0	PH	AM+COSM	Per
	<i>Ceiba speciosa</i> (A.St.-Hil., A.Juss. & Cambess.) Ravenna	1	0	0	0	Hem	AM+COSM	Per
	<i>Corehorus olitorius</i> L.	0	0	0	1	TH	SA+PAN+PAL	Ann
	<i>Hibiscus fragilis</i> DC.	1	1	0	0	PH	ME	Per
	<i>Hibiscus sabdariffa</i> L.	0	1	0	0	TH	ES+ME+SA+SS+PAL+PAN	Ann
	<i>Malvastrum coromandelianum</i> (L.) Garcke	1	0	0	0	TH	ES+ME+SA+SS+PAL+PAN	Ann
	<i>Malvaviscus arboreus</i> Dill. ex Cav.	0	1	0	0	PH	AM+COSM+PAL+PAN	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Moraceae	Ficus aurea Nutt.	0	1	0	0	HEM	PAN+PAL	Per
	Ficus cordata Thunb.	1	0	0	0	HEM	PAN+PAL	Per
	Ficus elastica Roxb. ex Hornem.	0	0	0	1	PH	PAN+PAL	Per
	Ficus ingens Miq.	1	0	0	0	PH	PAN+PAL	Per
	Ficus lutea Vahl	1	0	0	0	HEM	PAN+PAL	Per
	Ficus lyrata Warb.	0	0	1	0	PH	PAN+PAL	Per
	Ficus maclei landiiKing	1	0	0	0	PH	PAN+PAL	Per
	Ficus microcarpa L.f.	1	0	0	0	PH	PAN+PAL	Per
	Ficus religiosa L.	1	0	1	1	PH	PAN+PAL	Per
	Ficus retusa L.	1	1	1	0	PH	PAN+PAL	Per
	Ficus rubiginosa Desf. ex Vent.	1	0	0	0	HEM	PAN+PAL	Per
	Ficus variegata Blume	1	0	0	0	PH	PAN+PAL	Per
	Ficus virens Aiton	1	0	0	0	PH	PAN+PAL	Per
	Morus alba L.	1	0	0	0	PH	ME+ ES	Per
	Ficus benjamina L.	1	1	0	0	PH	AM+COSM	Per
Moringaceae	Moringa oleifera Lam.	0	1	1	0	HEM	PAN	Per
Musaceae	Musa acuminata Colla	0	0	1	0	HEM	PAL	Per
Myrtaceae	Eucalyptus globulus Labill.	0	0	0	1	PH	ES	Per
	Eucalyptus robusta Sm.	1	0	0	0	PH	IT	Per
	Melaleuca bracteata F.Muell.	0	1	0	0	HEM	AUS	Per
	Melaleuca viminalis (Sol. ex Gaertner) Byrnes	0	1	0	0	HEM	AUS	Per
	Psidium guajava L.	1	0	0	1	HEM	AM+COSM	Per
	Syzygium cumini (L.) Skeels	0	0	0	1	HEM	PAL	Per

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Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Nyctaginaceae	Bougainvillea x buttiana Holtt & Standl.	1	0	0	0	TH	COSM	Ann
	Bougainvillea glabra Choisy	1	1	1	0	PH	SA	Ann
	Bougainvillea spectabilis Willd.Bonpl.	1	0	0	0	PH	SA	Ann
	Mirabilis longiflora L.	0	0	1	0	PH	AM	Ann
Oleaceae	Forsythia viridissima Lindl.	1	0	0	0	PH	TR	Per
	Fraxinus angustifolia Vahl	0	1	0	0	GE	ME+SA	Per
	Fraxinus pennsylvanica Marshall	0	1	0	0	GE	AM+COSM	Per
	Jasminum grandiflorum L.	0	0	1	0	HEM	ME+SA	Per
	Jasminum sambac (L.) Aiton	0	1	1	0	HEM	PAL+PAN	Per
	Olea europaea L.	1	0	1	0	GE	ME+SA+ES+IT+PAL+PAN	Per
	Oxalis debilis Kunth	0	1	0	0	TH	AM+COSM	Per
Pittosporaceae	Pittosporum heterophyllum Franch.	0	0	0	1	HEM	PAN+PAL	Per
Plumbaginaceae	Plumbago auriculata Lam.	1	0	1	0	HEM	SA+AUS+PAL+PAN	Per
	Plumbago zeylanica L.	1	0	0	0	HEM	PAN+PAL	Per
Poaceae	Cenchrus ciliaris L.	1	0	0	0	HEM	ES	Per
	Cenchrus echinatus L.	1	0	0	0	HEM	Am	Ann
	Cenchrus spinifex Cav.	1	0	0	0	HEM	AUS	Ann
	Cynodon dactylon (L.) Pers.	1	0	0	0	TH	COSM	Per
	Ehrharta erecta Lam.	0	1	0	0	HEM	ME	Ann
	Dactyloctenium aegyptium (L.) Willd.	1	1	0	0	TH	PAL	Ann
Portulacaceae	Portulaca oleracea L.	0	1	0	1	TH	COSM	Ann
Primulaceae	Lysimachia tenella L.	0	0	0	1	HEM	ES	Ann
Rhamnaceae	Ziziphus spina-christi (L.) Desf.	1	0	0	0	PH	ME	Per

Supplementary Table 1. Cont.

Accepted family	Accepted_name	FUG	FPIG	FGC	FZ	Life form	Chorology	Life span
Rosaceae	Rosa abietina Gren. ex H.Christ	1	0	0	1	PH	EU	Per
	Rosa chinensis Jacq.	1	0	0	0	PH	IT	Per
	Rosa luciae Franch. & Roehbr. ex CrÃ©p.	1	0	1	0	PH	ES	Per
	Rosa pendulina L.	1	0	1	0	PH	ES	Per
Rubiaceae	Hamelia patens Pers.	0	0	1	0	HEM	AM	Per
Rutaceae	Citrus aurantiifolia (Christm.) Swingle	1	0	1	1	PH	COSM	Per
	Citrus japonica Thunb.	1	0	0	0	PH	ES	Per
	Citrus limon (L.) Osbeck	0	1	0	0	PH	ME	Per
Sapindaceae	Dodonaea viscosa Jacq.	1	1	0	0	HEM	SA	Per
Scrophulariaceae	Leucophyllum frutescens (Berland.) I.M.Johnst.	1	0	0	0	HEM	AM	Per
Solanaceae	Cestrum parqui L'Hér.	1	1	1	0	GE	AM	Per
	Solanum villosum Mill.	0	1	0	0	Th	AM	Ann
	Withania somnifera (L.) Moench	1	0	0	0	HEM	PAL+PAM	Per
Strelitziaceae	Strelitzia reginae Banks	0	1	0	0	He m	ME+SA	Per
Verbenaceae	Duranta erecta L.	1	1	1	0	PH	AM	Per
	Lantana camara L.	1	1	1	0	Th	SS	Ann
	Lantana canescens Kunth	1	0	0	0	Th	SS	Ann
	Lantana montevidensis (Spreng.) Briq.	1	0	0	0	Th	AM	Ann
Zingiberaceae	Curcuma longa L.	0	0	0	1	GE	PAL+PAN	Per