

List of Plants

BETULINIC-ACID

Chemid

BETULINICACID

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	*Reference
Acrotrema uniflorum	Plant	--	1200.0	-0.48	Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Acrotrema arnotianum	Leaf	--	5300.0	0.31	Jim Duke's personal files.
Acrotrema uniflorum	Plant	--	1200.0	-0.48	Jim Duke's personal files.
Adansonia digitata	Bark	--	--		Jim Duke's personal files.
Ailanthus grandis	Twig	--	86.0	1.0	Jim Duke's personal files.
Ailanthus grandis	Bark	--	--		Jim Duke's personal files.
Akania luceus	Bark	--	200.0	-0.67	Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Akania luceus	Bark	--	200.0	-0.67	Jim Duke's personal files.
Alangium lamarckii	Seed	--	--		Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Aleurites montana	Bark	--	60.0	-0.69	Jim Duke's personal files.
Alnus maximowiczii	Root	--	260.0	-0.32	Jim Duke's personal files.
Alnus nepalensis	Bark	--	2100.0	-0.42	Jim Duke's personal files.
Alphitonia whitei	Leaf	--	4900.0	0.21	Jim Duke's personal files.
Alphitonia petriei	Leaf	--	6200.0	0.53	Jim Duke's personal files.
Alphitonia excelsa	Leaf	--	8700.0	1.14	Jim Duke's personal files.
Alphitonia whitei	Bark	--	5100.0	-0.01	Jim Duke's personal files.
Alphitonia macrocarpa	Wood	--	110.0	-0.43	Jim Duke's personal files.
Alphitonia petriei	Bark	--	6900.0	0.23	Jim Duke's personal files.
Alphitonia excelsa	Bark	--	8400.0	0.44	Jim Duke's personal files.
Alphitonia whitei	Wood	--	720.0	-0.09	Jim Duke's personal files.
Alphitonia macrocarpa	Leaf	--	4600.0	0.14	Jim Duke's personal files.
Alphitonia petriei	Wood	--	70.0	-0.45	Jim Duke's personal files.
Alphitonia excelsa	Wood	--	500.0	-0.21	Jim Duke's personal files.
Alstonia scholaris	Stem Bark	--	--		Jim Duke's personal files.

<i>Alyxia buxifolia</i>	Leaf	--	8000.0	0.97	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Alyxia buxifolia</i>	Leaf	--	8000.0	0.97	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Amanoa oblongifolia</i>	Stem Bark	--	87.6	-0.39	Jim Duke's personal files.
<i>Ammannia baccifera</i>	Root	--	1636.4	-0.21	Jim Duke's personal files.
<i>Amoora canarana</i>	Root	--	--		Jim Duke's personal files.
<i>Ampelozizyphus amazonicus</i>	Root	--	--		Jim Duke's personal files.
<i>Amsonia grandiflora</i>	Shoot	--	--		Jim Duke's personal files.
<i>Anemone narcissiflora</i>	Plant	--	--		Jim Duke's personal files.
<i>Anisomeles malabarica</i>	Plant	--	100.0	-0.63	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Anisomeles malabarica</i>	Plant	--	100.0	-0.63	Jim Duke's personal files.
<i>Arbutus menziesii</i>	Plant	--	20000.0	2.05	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Arbutus unedo</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Arbutus menziesii</i>	Plant	--	20000.0	2.05	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Arbutus unedo</i>	Leaf	--	--		Jim Duke's personal files.
<i>Arctostaphylos uva-ursi</i>	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
<i>Arctostaphylos uva-ursi</i>	Root	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Artocarpus integrifolia</i>	Heart Wood	--	3000.0	1.41	Jim Duke's personal files.
<i>Artocarpus integrifolia</i>	Root	--	--		Jim Duke's personal files.
<i>Artocarpus heterophyllus</i>	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Artocarpus integrifolia</i>	Root Bark	--	--		Jim Duke's personal files.
<i>Aspidixia angulata</i>	Plant	--	--		Jim Duke's personal files.
<i>Avicennia officinalis</i>	Shoot	--	--		Jim Duke's personal files.
<i>Avicennia alba</i>	Stem Bark	--	160.0	-0.36	Jim Duke's personal files.
<i>Avicennia marina</i>	Bark	--	3000.0	-0.29	Jim Duke's personal files.
<i>Avicennia officinalis</i>	Stem Bark	--	1450.0	0.19	Jim Duke's personal files.
<i>Avicennia tomentosa</i>	Stem Bark	--	100.0	-0.39	Jim Duke's personal files.
<i>Avicennia officinalis</i>	Leaf	--	500.0	-0.87	Jim Duke's personal files.
<i>Avicennia marina</i>	Bark	--	3000.0	-0.29	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Balanops australiana</i>	Bark	--	90.0	-0.69	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.

Balanops australiana	Bark	--	90.0	-0.69	Jim Duke's personal files.
Bauhinia vahlii	Leaf	--	--		Jim Duke's personal files.
Betula sp.	Bark	--	--		Jim Duke's personal files.
Betula maximowicziana	Bark	--	6000.0	0.11	Jim Duke's personal files.
Betula lenta	Bark	--	--		Jim Duke's personal files.
Betula platyphylla	Bark	--	--		Jim Duke's personal files.
Betula ermanii	Bark	--	--		Jim Duke's personal files.
Betula pendula	Bark	--	2100.0	-0.42	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Betula utilis	Plant	--	--		Jim Duke's personal files.
Betula papyrifera	Bark	--	--		Jim Duke's personal files.
Betula pendula	Bark	--	2100.0	-0.42	Jim Duke's personal files.
Bischofia javanica	Plant	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Bischofia javanica	Bark	--	--		Jim Duke's personal files.
Boehmeria excelsa	Bark	--	--		Jim Duke's personal files.
Bonnetia dinizii	Bark	--	103.7	-0.69	Jim Duke's personal files.
Bonnetia dinizii	Wood	--	48.0	-0.46	Jim Duke's personal files.
Bowdichia virgilioides	Stem Bark	--	60.0	-0.4	Jim Duke's personal files.
Broussonetia papyrifera	Stem	--	--		Jim Duke's personal files.
Buxus wallichiana	Shoot	--	--		Jim Duke's personal files.
Buxus microphylla	Shoot	--	--		Jim Duke's personal files.
Byrsonima crassifolia	Leaf	--	3.4	-1.0	Jim Duke's personal files.
Caesalpinia decapetala	Root	--	1.2	-0.34	Jim Duke's personal files.
Callicarpa arborea	Bark	--	--		Jim Duke's personal files.
Callistemon lanceolatus	Leaf	--	--		Jim Duke's personal files.
Calophyllum apetalum	Bark	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Calophyllum lankaensis	Bark	--	1000.0	-0.57	Jim Duke's personal files.
Calophyllum bracteatum	Wood	--	30.0	-0.47	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Calophyllum apetalum	Bark	--	--		Jim Duke's personal files.
Calophyllum tomentosum	Bark	--	1000.0	-0.57	Jim Duke's personal files.
Calophyllum bracteatum	Wood	--	30.0	-0.47	Jim Duke's personal files.
Calophyllum macrocarpum	Stem Bark	--	20.0	-0.42	Jim Duke's personal files.
Camptotheca acuminata	Fruit	--	--		Jim Duke's personal files.

<i>Caraipa grandifolia</i>	Wood	--	--		Jim Duke's personal files.
<i>Caraipa densiflora</i>	Wood	--	--		Jim Duke's personal files.
<i>Caraipa densifolia</i>	Bark	--	103.0	-0.69	Jim Duke's personal files.
<i>Caraipa grandifolia</i>	Twig	--	--		Jim Duke's personal files.
<i>Caraipa grandifolia</i>	Wood	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Caraipa densiflora</i>	Wood	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Careya arborea</i>	Bark	--	--		Jim Duke's personal files.
<i>Carya ovata</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Cassia obtusifolia</i>	Root	--	5000.0	0.05	Jim Duke's personal files.
<i>Cassinia laevis</i>	Shoot	--	847.0	-0.07	Jim Duke's personal files.
<i>Ceanothus americanus</i>	Root Bark	200.0	7279.0	1.92	Jim Duke's personal files.
<i>Ceanothus velutinus</i>	Root Bark	--	--		Jim Duke's personal files.
<i>Ceanothus americanus</i>	Root Bark	--	200.0	-0.89	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Centella asiatica</i>	Plant	--	1100.0	-0.49	Jim Duke's personal files.
<i>Chamaecrista greggii</i>	Root	--	14.8	-0.34	Jim Duke's personal files.
<i>Claoxylon polot</i>	Leaf	--	10.0	-0.99	Jim Duke's personal files.
<i>Clinopodium umbrosum</i>	Plant	--	--		Jim Duke's personal files.
<i>Clusia</i> sp.	Wood	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Clusia</i> sp.	Wood	--	--		Jim Duke's personal files.
<i>Clusia arboricida</i>	Wood	--	60.8	-0.46	Jim Duke's personal files.
<i>Coccoloba excoriata</i>	Bark	--	--		Jim Duke's personal files.
<i>Coccoloba excoriata</i>	Leaf	--	--		Jim Duke's personal files.
<i>Colubrina granulosa</i>	Heart Wood	--	--		Jim Duke's personal files.
<i>Combretum imberbe</i>	Bark	--	--		Jim Duke's personal files.
<i>Cornus florida</i>	Bark	--	20000.0	2.0	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. <i>Phytochem.</i> 13:2002-2006.
<i>Cornus florida</i>	Bark	--	20000.0	2.0	Jim Duke's personal files.
<i>Cornus capitata</i>	Stem	--	163.3	0.05	Jim Duke's personal files.
<i>Cotylelobium scabriusculum</i>	Wood	--	170.0	-0.4	Jim Duke's personal files.
<i>Crateva religiosa</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Crotalaria semperflorens</i>	Shoot	--	--		Jim Duke's personal files.
<i>Cuphea infundibulum</i>	Shoot	--	22.3	-0.28	Jim Duke's personal files.
<i>Cuphea epilobifolia</i>	Shoot	--	22.0	-0.28	Jim Duke's personal files.

Cuphea carthagenensis	Shoot	--	42.5	-0.27	Jim Duke's personal files.
Datura innoxia	Tissue Culture	--	--		Jim Duke's personal files.
Dendroseris neriifolia	Shoot	--	--		Jim Duke's personal files.
Dichrostachys glomerata	Bark	--	35.0	-0.7	Jim Duke's personal files.
Dicoma tomentosa	Stem	--	--		Jim Duke's personal files.
Dillenia retusa	Bark	--	8000.0	0.38	*
Dillenia indica	Pericarp	--	1900.0	-0.6	Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Dillenia indica	Heart Wood	--	--		Jim Duke's personal files.
Dillenia indica	Bark	--	7500.0	0.31	Jim Duke's personal files.
Dillenia pentagyna	Leaf	--	9800.0	1.41	Jim Duke's personal files.
Dillenia anhamanica	Leaf	--	5000.0	0.23	Jim Duke's personal files.
Dillenia retusa	Fruit	--	1600.0	-0.48	Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Dillenia indica	Wood	--	2500.0	0.92	*
Dillenia indica	Pericarp	--	19000.0	1.41	Jim Duke's personal files.
Dillenia indica	Fruit	--	--		Jim Duke's personal files.
Dillenia bracteata	Leaf	--	5800.0	0.43	Jim Duke's personal files.
Dillenia retusa	Wood	--	1300.0	0.24	*
Dillenia retusa	Fruit	--	16000.0	2.03	Jim Duke's personal files.
Dillenia indica	Stem Bark	--	--		Jim Duke's personal files.
Dillenia indica	Leaf	--	6000.0	0.48	Jim Duke's personal files.
Dillenia indica	Bark	--	13000.0	1.06	*
Dillenia scabrella	Leaf	--	5750.0	0.42	Jim Duke's personal files.
Dillenia aurea	Leaf	--	7200.0	0.78	Jim Duke's personal files.
Dillenia retusa	Leaf	--	8500.0	1.1	Jim Duke's personal files.
Diospyros iturensis	Bark	--	660.0	-0.61	Jim Duke's personal files.
Diospyros mespiliformis	Bark	--	--		Jim Duke's personal files.
Diospyros siamang	Wood	--	--		Jim Duke's personal files.
Diospyros malanonilau	Heart Wood	--	--		Jim Duke's personal files.
Diospyros quaesita	Wood	--	2200.0	0.75	Jim Duke's personal files.
Diospyros hoyleana	Wood	--	280.0	-0.33	Jim Duke's personal files.
Diospyros cinnabarina	Wood	--	--		Jim Duke's personal files.
Diospyros gracilescens	Stem Bark	--	--		Jim Duke's personal files.
Diospyros longiflora	Wood	--	--		Jim Duke's personal files.
Diospyros fragrans	Wood	--	--		Jim Duke's personal files.
Diospyros perigrina	Seed	--	--		*
Diospyros kamerunensis	Bark	--	--		Jim Duke's personal files.

Diospyros celebica	Wood	--	--		Jim Duke's personal files.
Diospyros argentea	Stem Bark	--	--		Jim Duke's personal files.
Diospyros ebenum	Heart Wood	--	--		Jim Duke's personal files.
Diospyros morrisiana	Plant	--	--		*
Diospyros kaki	Leaf	--	--		Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Diospyros greenwayi	Leaf	--	60.0	-0.98	Jim Duke's personal files.
Diospyros crassiflora	Bark	--	--		Jim Duke's personal files.
Diospyros melanoxyton	Stem Bark	--	100.0	-0.39	Jim Duke's personal files.
Diospyros melanoxyton	Fruit	--	--		Jim Duke's personal files.
Diospyros walkeri	Wood	--	1000.0	0.07	Jim Duke's personal files.
Diospyros hirsuta	Fruit	20.0	200.0	-0.73	*
Diospyros thwaitesii	Wood	--	480.0	-0.22	Jim Duke's personal files.
Diospyros consolatae	Stem Bark	--	160.0	-0.36	Jim Duke's personal files.
Diospyros discolour	Wood	--	800.0	-0.04	Jim Duke's personal files.
Diospyros lotus	Shoot	--	--		Jim Duke's personal files.
Diospyros buxifolia	Shoot	--	--		Jim Duke's personal files.
Diospyros moonii	Wood	--	80.0	-0.45	Jim Duke's personal files.
Diospyros verrucosa	Root Bark	--	3800.0	0.54	Jim Duke's personal files.
Diospyros lotus	Plant	--	--		*
Diospyros sumatrana	Bark	--	--		Jim Duke's personal files.
Diospyros montana	Leaf	--	--		Jim Duke's personal files.
Diospyros singaporensis	Wood	--	--		Jim Duke's personal files.
Diospyros zenkeri	Bark	--	646.7	-0.61	Jim Duke's personal files.
Diospyros siamensis	Stem Bark	--	--		Jim Duke's personal files.
Diospyros japonica	Root	--	--		Jim Duke's personal files.
Diospyros monbuttensis	Bark	--	--		Jim Duke's personal files.
Diospyros ismailii	Wood	--	--		Jim Duke's personal files.
Diospyros maritima	Root	--	--		Jim Duke's personal files.
Diospyros siamang	Bark	--	--		Jim Duke's personal files.
Diospyros maingayi	Wood	--	--		Jim Duke's personal files.
Diospyros consolatae	Root Bark	--	800.0	-0.65	Jim Duke's personal files.

<i>Diospyros hoyleana</i>	Bark	--	130.0	-0.68	Jim Duke's personal files.
<i>Diospyros cinnabarina</i>	Bark	--	80.0	-0.69	Jim Duke's personal files.
<i>Diospyros gracilescens</i>	Bark	--	60.0	-0.69	Jim Duke's personal files.
<i>Diospyros longiflora</i>	Bark	--	393.0	-0.65	Jim Duke's personal files.
<i>Diospyros eriantha</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros perigrina</i>	Bark	25000.0	30000.0	3.36	*
<i>Diospyros celebica</i>	Heart Wood	--	268.6	-0.64	Jim Duke's personal files.
<i>Diospyros abyssinica</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros dendo</i>	Wood	--	--		Jim Duke's personal files.
<i>Diospyros morrisiana</i>	Heart Wood	--	--		Jim Duke's personal files.
<i>Diospyros kaki</i>	Calyx	--	--		*
<i>Diospyros ferrea</i>	Shoot	--	--		Jim Duke's personal files.
<i>Diospyros melanoxyton</i>	Plant	--	50.0	-0.63	Jim Duke's personal files.
<i>Diospyros melanoxyton</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros tomentosa</i>	Shoot	--	--		Jim Duke's personal files.
<i>Diospyros quaesita</i>	Bark	--	2100.0	-0.42	Jim Duke's personal files.
<i>Diospyros hirsuta</i>	Bark	--	100.0	-0.69	*
<i>Diospyros discolour</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Diospyros lotus</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Diospyros sylvatica</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros buxifolia</i>	Plant	--	--		*
<i>Diospyros montana</i>	Wood	--	945.0	0.04	Jim Duke's personal files.
<i>Diospyros verrucosa</i>	Leaf	--	8150.0	1.01	Jim Duke's personal files.
<i>Diospyros lotus</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros natalensis</i>	Leaf	--	24.0	-0.99	Jim Duke's personal files.
<i>Diospyros spinescens</i>	Wood	--	210.0	-0.37	Jim Duke's personal files.
<i>Diospyros singaporensis</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros wallichii</i>	Wood	--	--		Jim Duke's personal files.
<i>Diospyros montana</i>	Fruit	--	--		Jim Duke's personal files.
<i>Diospyros iturensis</i>	Wood	--	--		Jim Duke's personal files.
<i>Diospyros mollis</i>	Fruit	--	--		Jim Duke's personal files.
<i>Diospyros siamensis</i>	Bark	--	--		Jim Duke's personal files.
<i>Diospyros mannii</i>	Stem Bark	76.2	77.6	-0.4	Jim Duke's personal files.

Diospyros sanza-minika	Bark	--	--		Jim Duke's personal files.
Diospyros ismailii	Fruit	--	--		Jim Duke's personal files.
Diospyros consolatae	Leaf	--	2000.0	-0.5	Jim Duke's personal files.
Diospyros gracilescens	Wood	--	--		Jim Duke's personal files.
Diospyros maingayi	Bark	--	--		Jim Duke's personal files.
Diospyros gabunensis	Bark	--	--		Jim Duke's personal files.
Diospyros tomentosa	Plant	--	--		*
Diospyros leucomelas	Leaf	--	--		Jim Duke's personal files.
Diospyros chevalieri	Bark	--	--		Jim Duke's personal files.
Diospyros canaliculata	Bark	--	--		Jim Duke's personal files.
Diospyros ebenum	Stem Bark	--	80.0	-0.39	Jim Duke's personal files.
Diospyros morrisiana	Root	--	200.0	-0.32	Jim Duke's personal files.
Diospyros kaki	Root	--	--		Jim Duke's personal files.
Diospyros mafiensis	Leaf	--	200.0	-0.95	Jim Duke's personal files.
Diospyros dendo	Bark	--	30.0	-0.7	Jim Duke's personal files.
Diospyros melanoxyton	Wood	100.0	1000.0	0.07	*
Diospyros ferrea	Root	--	--		Jim Duke's personal files.
Diospyros melanoxyton	Heart Wood	--	100.0	-0.77	Jim Duke's personal files.
Diospyros hirsuta	Wood	130.0	400.0	-0.27	*
Diospyros montana	Seed	--	--		Jim Duke's personal files.
Diospyros derra	Plant	--	--		*
Diospyros lotus	Wood	--	--		Jim Duke's personal files.
Diospyros melanoxyton	Leaf	--	--		Jim Duke's personal files.
Diospyros discolour	Fruit	--	500.0	-0.67	*
Diospyros verrucosa	Stem Bark	--	2000.0	0.43	Jim Duke's personal files.
Diospyros lotus	Root	--	20.0	-0.34	Jim Duke's personal files.
Diospyros sumatrana	Wood	--	--		Jim Duke's personal files.
Diospyros montana	Stem Bark	--	--		Jim Duke's personal files.
Diospyros spinescens	Bark	--	4320.0	-0.12	Jim Duke's personal files.
Diospyros zenkeri	Wood	--	60.0	-0.46	Jim Duke's personal files.
Diospyros siderophylla	Bark	--	--		Jim Duke's personal files.
Diospyros wallichii	Bark	--	--		Jim Duke's personal files.
Diospyros montana	Bark	--	15300.0	1.37	Jim Duke's personal files.

Dipterocarpus insignis	Wood	--	--		Jim Duke's personal files.
Dipterocarpus hispidus	Bark	--	140.0	-0.68	*
Dipterocarpus glandulosus	Wood	--	--		Jim Duke's personal files.
Dipterocarpus zeylanicus	Wood	--	--		Jim Duke's personal files.
Dipterocarpus hispidus	Wood	--	--		Jim Duke's personal files.
Discaria longispina	Plant	--	--		*
Echinops echinatus	Flower	--	--		Jim Duke's personal files.
Echinops niveus	Plant	--	--		Jim Duke's personal files.
Echinops echinatus	Twig	--	--		Jim Duke's personal files.
Ehretia laevis	Bark	--	150.0	-0.68	Jim Duke's personal files.
Eleutherococcus senticosus	Rhizome	--	--		*
Enterolobium cyclocarpum	Bark	--	60.0	-0.69	Jim Duke's personal files.
Epilobium rosmarinifolium	Root	--	--		Jim Duke's personal files.
Erythrospermum zeylanicum	Bark	--	110.0	-0.69	Jim Duke's personal files.
Eucalyptus citriodora	Leaf	--	--		*
Eucalyptus citriodora	Root	--	167.0	-0.33	*
Eucalyptus citriodora	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
Euclea natalensis	Leaf	--	200.0	-0.95	Jim Duke's personal files.
Eucommia ulmoides	Bark	--	--		Jim Duke's personal files.
Eugenia wallichii	Stem Bark	--	--		*
Eugenia jambolana	Bark	--	1700.0	-0.47	Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Eugenia fruticosa	Stem Bark	--	--		*
Euptelea polyandra	Bark	--	240.0	-0.67	Jim Duke's personal files.
Eurya japonica	Stem	--	--		Jim Duke's personal files.
Eurya acuminata	Bark	--	18000.0	1.73	*
Fagonia indica	Plant	--	--		Jim Duke's personal files.
Fagus taurica	Bark	--	--		Jim Duke's personal files.
Ficus thunbergii	Stem	--	31.4	-0.33	Jim Duke's personal files.
Formosia benthamiana	Stem	--	--		Jim Duke's personal files.
Forsythia viridissima	Fruit	--	--		Jim Duke's personal files.
Forsythia suspensa	Fruit	--	--		Jim Duke's personal files.
Givotia rottleriformis	Bark	--	--		Jim Duke's personal files.
Glycyrrhiza squamulosa	Root	--	17.1	-0.34	Jim Duke's personal files.

<i>Glycyrrhiza uralensis</i>	Root	--	--		*
<i>Glycyrrhiza glabra</i>	Tissue Culture	--	--		*
<i>Gochnatia blanchetiana</i>	Shoot	--	166.0	-0.24	Jim Duke's personal files.
<i>Gratifolia officianalis</i>	Plant	--	2500.0	-0.3	*
<i>Gypsophila struthium</i>	Root	--	9.6	-0.34	Jim Duke's personal files.
<i>Herpestis monniera</i>	Plant	--	1100.0	-0.49	Jim Duke's personal files.
<i>Hibiscus mutabilis</i>	Flower	--	--		Jim Duke's personal files.
<i>Hoffmannia strigillosa</i>	Shoot	--	12.5	-0.28	Jim Duke's personal files.
<i>Hopea cordifolia</i>	Bark	--	210.0	-0.67	Jim Duke's personal files.
<i>Hopea jucunda</i>	Wood	--	160.0	-0.4	Jim Duke's personal files.
<i>Hopea brevipedicularis</i>	Wood	--	--		Jim Duke's personal files.
<i>Hopea cordifolia</i>	Wood	--	150.0	-0.41	Jim Duke's personal files.
<i>Hydnocarpus venenata</i>	Bark	--	60.0	-0.69	*
<i>Hydnocarpus wightiana</i>	Leaf	--	48.8	-0.98	Jim Duke's personal files.
<i>Hydnocarpus wightiana</i>	Seed	--	--		Jim Duke's personal files.
<i>Hydnocarpus venenata</i>	Wood	--	--		Jim Duke's personal files.
<i>Hydnocarpus wightiana</i>	Stem Bark	--	66.6	-0.4	Jim Duke's personal files.
<i>Hypericum androsaemum</i>	Root Bark	--	--		Jim Duke's personal files.
<i>Hypericum patulum</i>	Shoot	--	--		Jim Duke's personal files.
<i>Hypericum elatum</i>	Root Bark	--	--		Jim Duke's personal files.
<i>Hyptis albida</i>	Shoot	--	6.0	-0.28	Jim Duke's personal files.
<i>Hyptis emoryi</i>	Shoot	--	--		Jim Duke's personal files.
<i>Hyptis suaveolens</i>	Root	--	--		Jim Duke's personal files.
<i>Inga punctata</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Iris missouriensis</i>	Root	--	--		Jim Duke's personal files.
<i>Jacaranda caucana</i>	Stem Bark	--	110.0	-0.38	Jim Duke's personal files.
<i>Jasminum sambac</i>	Leaf	--	100.0	-0.97	Jim Duke's personal files.
<i>Juglans regia</i>	Stem Bark	--	40.0	-0.41	Jim Duke's personal files.
<i>Jussiaea suffruticosa</i>	Plant	--	--		Jim Duke's personal files.
<i>Kayea stylosa</i>	Bark	--	100.0	-0.69	*
<i>Lantana camara</i>	Shoot	--	--		Jim Duke's personal files.
<i>Lavandula spica</i>	Shoot	--	133.3	-0.25	Jim Duke's personal files.
<i>Lawsonia inermis</i>	Plant	--	--		Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.
<i>Lawsonia inermis</i>	Bark	--	--		*
<i>Lemaireocereus griseus</i>	Plant	--	20000.0	2.05	*

Lemaireocereus quevedonis	Stem	--	--		Jim Duke's personal files.
Lemaireocereus quevedonis	Plant	--	--		*
Lemaireocereus hystrix	Plant	--	400.0	-0.59	*
Lemaireocereus stellatus	Plant	--	3800.0	-0.13	*
Lepechinia caulescens	Shoot	--	4.0	-0.28	Jim Duke's personal files.
Lepechinia glomerata	Shoot	--	--		Jim Duke's personal files.
Lepechinia chamaedryoides	Shoot	--	--		Jim Duke's personal files.
Leptospermum scoparium	Bark	--	5000.0	-0.02	*
Leptospermum ericoides	Bark	--	--		*
Lespedeza davidii	Stem Bark	--	--		Jim Duke's personal files.
Limnophila rugosa	Plant	--	--		Jim Duke's personal files.
Lithocarpus polystachya	Stem	--	1.6	-0.42	Jim Duke's personal files.
Lithocarpus attenuata	Stem	--	--		Jim Duke's personal files.
Ludwigia parviflora	Plant	--	--		Jim Duke's personal files.
Luisia indivisa	Plant	--	--		Jim Duke's personal files.
Lycopus lucidus	Shoot	--	--		Jim Duke's personal files.
Machaerocereus gummosus	Plant	--	4000.0	-0.1	*
Madhuca microphylla	Bark	--	930.0	-0.57	Jim Duke's personal files.
Madhuca nerifolia	Bark	300.0	560.0	-0.62	*
Maytenus canariensis	Shoot	--	--		Jim Duke's personal files.
Maytenus aquifolium	Plant	--	--		Jim Duke's personal files.
Melaleuca leucadendra	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Melaleuca leucadendron	Fruit	--	420.0	-0.69	Jim Duke's personal files.
Melanoxylon brauna	Wood	--	--		*
Melanoxylon brauna	Bark	--	250.0	-0.67	Jim Duke's personal files.
Menyanthes trifoliata	Root	1000.0	8000.0	0.29	*
Menyanthes trifoliata	Rhizome	--	1000.0	1.0	*
Mesua myrtifolia	Bark	--	100.0	-0.69	Jim Duke's personal files.
Mesua ferrea	Stem Bark	--	2120.0	0.48	Jim Duke's personal files.
Metrosideros excelsa	Flower	--	1000.0	-0.45	*
Mimusops littoralis	Bark	--	--		Jim Duke's personal files.
Mitrephora heyneana	Bark	--	--		Jim Duke's personal files.
Morus alba	Bark	--	1800.0	-0.46	Jim Duke's personal files.

<i>Morus serrata</i>	Bark	--	--		Jim Duke's personal files.
<i>Morus alba</i>	Root Bark	--	150.0	-0.91	Jim Duke's personal files.
<i>Nerium oleander</i>	Leaf	--	--		Jim Duke's personal files.
<i>Newcastelia viscida</i>	Plant	--	--		Jim Duke's personal files.
<i>Nuytsia floribunda</i>	Shoot	--	17000.0	3.87	*
<i>Nymphoides peltatum</i>	Plant	--	--		Jim Duke's personal files.
<i>Ocimum canum</i>	Shoot	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
<i>Ocimum americanum</i>	Plant	--	--		Jim Duke's personal files.
<i>Origanum compactum</i>	Shoot	--	70.0	-0.26	Jim Duke's personal files.
<i>Paeonia japonica</i>	Tissue Culture	--	5000.0	-1.0	Jim Duke's personal files.
<i>Palaquium grande</i>	Bark	--	7.0	-0.7	Jim Duke's personal files.
<i>Pedicularis longiflora</i>	Plant	--	--		Jim Duke's personal files.
<i>Phyllanthus reticulatus</i>	Stem	--	3.3	-0.42	Jim Duke's personal files.
<i>Phyllanthus discoideus</i>	Root	--	--		Jim Duke's personal files.
<i>Picramnia sellowii</i>	Plant	--	--		Jim Duke's personal files.
<i>Platanus orientalis</i>	Pericarp	--	--		Jim Duke's personal files.
<i>Platanus occidentalis</i>	Bark	--	17500.0	1.67	Jim Duke's personal files.
<i>Platanus orientalis</i>	Exocarp	--	--		Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
<i>Platanus accrifolia</i>	Bark	--	18000.0	1.73	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
<i>Platanus acerifolia</i>	Bark	--	18000.0	1.73	Jim Duke's personal files.
<i>Platanus vulgaris</i>	Heart Wood	--	--		*
<i>Platanus orientalis</i>	Bark	--	17500.0	1.67	Pavannasasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
<i>Plectranthus urticifolius</i>	Plant	--	--		Jim Duke's personal files.
<i>Plumeria obtusa</i>	Leaf	--	3.4	-1.0	Jim Duke's personal files.
<i>Polygonum plebeium</i>	Flower	--	75.0	-0.94	Jim Duke's personal files.
<i>Pongamia pinnata</i>	Stem Bark	--	45.0	-0.41	Jim Duke's personal files.
<i>Pouteria torta</i>	Twig	--	15.0	-1.0	Jim Duke's personal files.
<i>Prunella vulgaris</i>	Root	--	738.0	-0.28	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Prunella vulgaris</i>	Shoot	--	2.88	-0.28	*
<i>Psophocarpus tetragonolobus</i>	Root	--	53000.0	3.82	Jim Duke's personal files.
<i>Psychotria adenophylla</i>	Leaf	--	--		Jim Duke's personal files.

<i>Punica granatum</i>	Bark	--	1500.0	-0.5	*
<i>Punica granatum</i>	Leaf	--	2000.0	-0.5	*
<i>Putoria calabrica</i>	Shoot	--	--		Jim Duke's personal files.
<i>Pygeum acuminatum</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Quercus championi</i>	Stem	--	3.3	-0.42	Jim Duke's personal files.
<i>Quercus suber</i>	Cork	--	--		*
<i>Quercus bambusaefolia</i>	Stem	--	3.7	-0.42	Jim Duke's personal files.
<i>Quercus myrsinaefolia</i>	Stem	--	1.1	-0.42	Jim Duke's personal files.
<i>Rhododendron falconeri</i>	Bark	--	--		Jim Duke's personal files.
<i>Rhododendron arboreum</i>	Bark	--	--		*
<i>Rhododendron grande</i>	Bark	--	--		*
<i>Rhodomyrtus tomentosa</i>	Stem	--	2.0	-0.42	Jim Duke's personal files.
<i>Rhodomyrtus tomentosa</i>	Leaf	--	4.0	-1.0	Jim Duke's personal files.
<i>Rosa woodsii</i>	Leaf	--	3.0	-1.0	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
<i>Rosa davurica</i>	Pericarp	--	70.0	-0.81	Jim Duke's personal files.
<i>Rosmarinus officinalis</i>	Leaf	--	--		*
<i>Rotala floribunda</i>	Plant	--	--		Jim Duke's personal files.
<i>Salvia longistyla</i>	Shoot	--	28.2	-0.27	Jim Duke's personal files.
<i>Salvia nicolsoniana</i>	Shoot	--	58.7	-0.27	Jim Duke's personal files.
<i>Salvia farinacea</i>	Shoot	--	--		Jim Duke's personal files.
<i>Salvia mexicana</i>	Plant	--	--		Jim Duke's personal files.
<i>Salvia triloba</i>	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Sambucus nigra</i>	Bark	--	--		*
<i>Sambucus racemosa</i>	Bark	--	--		Jim Duke's personal files.
<i>Sanguisorba officinalis</i>	Stem	--	1100.0	2.8	Jim Duke's personal files.
<i>Sarracenia flava</i>	Root	--	--		*
<i>Sarracenia flava</i>	Flower	--	--		*
<i>Sarracenia flava</i>	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Sarracenia flava</i>	Shoot	--	--		*
<i>Schefflera species</i>	Leaf	--	--		Jim Duke's personal files.
<i>Schefflera venulosa</i>	Leaf	--	200.0	-0.95	Jim Duke's personal files.
<i>Schefflera octophylla</i>	Leaf	--	--		Jim Duke's personal files.
<i>Schleichera oleosa</i>	Bark	--	--		Jim Duke's personal files.
<i>Schrebera swietenoides</i>	Fruit	--	--		Jim Duke's personal files.
<i>Scirpus tuberosus</i>	Root	--	--		Jim Duke's personal files.

<i>Scirpus fluviatilis</i>	Rhizome	--	27.0	-1.0	Jim Duke's personal files.
<i>Scoparia dulcis</i>	Root	--	--		Jim Duke's personal files.
<i>Scoparia dulcis</i>	Plant	--	500.0	-0.57	Jim Duke's personal files.
<i>Senna lindheimeriana</i>	Root	--	50.4	-0.34	Jim Duke's personal files.
<i>Shorea magistophylla</i>	Bark	--	20.0	-0.7	Jim Duke's personal files.
<i>Shorea stipularvis</i>	Bark	--	710.0	-0.6	Jim Duke's personal files.
<i>Shorea dyerii</i>	Wood	300.0	430.0	-0.25	Jim Duke's personal files.
<i>Shorea zeylanica</i>	Wood	--	--		Jim Duke's personal files.
<i>Shorea ovalifolia</i>	Wood	--	--		Jim Duke's personal files.
<i>Shorea congestiflora</i>	Wood	--	--		Jim Duke's personal files.
<i>Shorea affinis</i>	Wood	100.0	720.0	-0.09	Jim Duke's personal files.
<i>Shorea trapezifolia</i>	Wood	--	--		Jim Duke's personal files.
<i>Shorea oblongifolia</i>	Wood	--	--		Jim Duke's personal files.
<i>Solanum laciniatum</i>	Leaf	--	--		Jim Duke's personal files.
<i>Solanum aviculare</i>	Tissue Culture	--	30000.0	1.0	Jim Duke's personal files.
<i>Sorocea bonplandii</i>	Root	--	13.1	-0.34	Jim Duke's personal files.
<i>Spondianthus preussii</i>	Stem Bark	--	12000.0	4.73	Jim Duke's personal files.
<i>Stemonoporus oblongifolius</i>	Wood	--	--		Jim Duke's personal files.
<i>Stemonoporus affinis</i>	Wood	--	--		Jim Duke's personal files.
<i>Stemonoporus reticulatus</i>	Wood	--	--		Jim Duke's personal files.
<i>Stemonoporus cordifolius</i>	Wood	--	--		Jim Duke's personal files.
<i>Stemonoporus petiolaris</i>	Wood	--	--		Jim Duke's personal files.
<i>Stemonoporus canaliculatus</i>	Wood	--	--		Jim Duke's personal files.
<i>Symplocos racemosa</i>	Plant	--	--		Jim Duke's personal files.
<i>Syncarpia glomulifera</i>	Wood	--	--		Jim Duke's personal files.
<i>Syncarpia glomulifera</i>	Bark	--	12000.0	0.92	Jim Duke's personal files.
<i>Syncarpia laurifolia</i>	Bark	--	12000.0	0.92	*
<i>Syzygium claviflorum</i>	Leaf	--	--		Jim Duke's personal files.
<i>Syzygium cumini</i>	Leaf	--	--		Jim Duke's personal files.
<i>Syzygium claviflorum</i>	Leaf	--	205.0	-0.95	*
<i>Syzygium cumini</i>	Bark	--	1700.0	-0.47	Jim Duke's personal files.
<i>Syzygium cumini</i>	Stem Bark	--	1100.0	0.04	Jim Duke's personal files.
<i>Tacca aspera</i>	Tuber	--	--		Jim Duke's personal files.
<i>Talguenea quinquenervis</i>	Plant	--	--		Jim Duke's personal files.

<i>Tectona grandis</i>	Wood	--	10000.0	5.14	*
<i>Tectona grandis</i>	Stem Bark	--	--		Jim Duke's personal files.
<i>Tectona grandis</i>	Root	--	290.0	-0.32	Jim Duke's personal files.
<i>Tephrosia purpurea</i>	Plant	--	30.0	-0.64	Jim Duke's personal files.
<i>Terminalia catappa</i>	Bark	--	--		Diyabalanaga, T. K. K., Jayasinghe, U. L. B., Simmonds, P. M., Wannigama, G. P., Wickramasinghe, A. 1997. Chemical Investigation of <i>Terminalia catappa</i> . <i>Acgc. Chem. Res. Commun.</i> 6: 26-28.
<i>Terminalia alata</i>	Heart Wood	--	--		Jim Duke's personal files.
<i>Terminalia alata</i>	Bark	--	130.0	-0.68	Jim Duke's personal files.
<i>Ternstroemia gymnanthera</i>	Shoot	--	--		Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. <i>J. Nat. Prod.</i> , 61 (9): 1090-1095.
<i>Ternstromia merrilliana</i>	Bark	--	20000.0	2.0	*
<i>Tetracera sarmentosa</i>	Leaf	--	12300.0	2.03	Jim Duke's personal files.
<i>Tetracera indica</i>	Leaf	--	6000.0	0.48	Jim Duke's personal files.
<i>Tetracera scandens</i>	Leaf	--	13500.0	2.33	Jim Duke's personal files.
<i>Tetracera akara</i>	Leaf	--	10500.0	1.59	Jim Duke's personal files.
<i>Tovomita pyrifolia</i>	Wood	--	--		Jim Duke's personal files.
<i>Tovomita brasiliensis</i>	Wood	--	--		Jim Duke's personal files.
<i>Tovomita mangle</i>	Root	--	--		Jim Duke's personal files.
<i>Tovomita excelsa</i>	Wood	--	83.9	-0.44	Jim Duke's personal files.
<i>Triadenum japonicum</i>	Plant	--	--		Jim Duke's personal files.
<i>Vatica affinis</i>	Wood	300.0	740.0	-0.07	Jim Duke's personal files.
<i>Vauquelinia corymbosa</i>	Shoot	--	41.0	-0.27	Jim Duke's personal files.
<i>Vellozia declinans</i>	Shoot	--	--		Jim Duke's personal files.
<i>Vellozia declinans</i>	Stem	--	--		Jim Duke's personal files.
<i>Viscum articulatum</i>	Plant	--	--		Jim Duke's personal files.
<i>Viscum album</i>	Shoot	--	5.4	-0.28	Jim Duke's personal files.
<i>Viscum album</i>	Leaf	--	--		Jim Duke's personal files.
<i>Vismia micrantha</i>	Wood	--	280.0	-0.33	Jim Duke's personal files.
<i>Vismia cayennensis</i>	Wood	--	--		Jim Duke's personal files.
<i>Vitis vinifera</i>	Root	--	--		*
<i>Wisteria floribunda</i>	Wood	--	--		Jim Duke's personal files.
<i>Wisteria floribunda</i>	Bark	--	--		Jim Duke's personal files.
<i>Woodfordia floribunda</i>	Leaf	--	24.4	-0.99	Jim Duke's personal files.
<i>Wormia burbridgei</i>	Bark	--	24000.0	2.55	*
<i>Wormia triquetra</i>	Bark	--	16000.0	1.46	*
<i>Wormia triquetra</i>	Wood	--	1500.0	0.35	*
<i>Wormia triquetra</i>	Fruit	--	10000.0	0.99	*

Wormia triquetra	Flower	--	4500.0	1.39	*
Zizyphus joazeiro	Stem Bark	--	1200.0	0.09	Jim Duke's personal files.
Zizyphus joazeiro	Bark	--	--		Jim Duke's personal files.
Zizyphus jujuba	Wood	--	--		Jim Duke's personal files.
Zizyphus trinervia	Stem Bark	--	780.0	-0.09	Jim Duke's personal files.
Zizyphus rugosa	Plant	--	--		Jim Duke's personal files.
Zizyphus jujuba	Plant	--	--		*
Zizyphus oenoplia	Root Bark	--	2446.8	0.0	Jim Duke's personal files.
Zizyphus mauritiana	Bark	--	60.0	-0.69	Jim Duke's personal files.
Zizyphus vulgaris	Seed	--	--		Pavannasivam, G., & M.U.S. Sultanbawa. 1974. Betulinic acid in the Dilleniaceae and a review of its natural distribution. Phytochem. 13:2002-2006.
Zizyphus jujuba	Seed	--	--		Jim Duke's personal files.
Zizyphus trinervia	Bark	--	20.0	-0.7	Jim Duke's personal files.
Zizyphus rugosa	Bark	--	--		Jim Duke's personal files.
Zizyphus jujuba	Fruit	48.0	1800.0	-0.45	Jim Duke's personal files.
Zizyphus oenoplia	Bark	--	--		Jim Duke's personal files.
Zizyphus spinachristi	Plant	--	--		Jim Duke's personal files.
Zizyphus xylopyra	Stem Bark	--	869.0	-0.06	Jim Duke's personal files.
Zizyphus jujuba	Stem Bark	15.6	768.0	-0.1	Jim Duke's personal files.
Zizyphus rugosa	Stem Bark	--	644.0	-0.15	Jim Duke's personal files.
Zizyphus oenoplia	Root	--	--		Jim Duke's personal files.
Zizyphus jujuba	Bark	--	10000.0	0.65	Jim Duke's personal files.
Zizyphus nummularia	Stem Bark	--	116.6	-0.38	Jim Duke's personal files.
Zizyphus spinachristi	Leaf	--	60.0	-0.98	Jim Duke's personal files.
Zizyphus oenoplia	Stem Bark	--	820.0	-0.08	Jim Duke's personal files.