					R	ed	gum	s and	other		ocia	ted gi	roups						
	Habit	Bark – rough or smooth	Adult leaf colour	Adult leaf shape	Adult leaf length in cm	Adult leaf width in cm	Adult leaf sheen	Umbel bud number	Bud pedicels	Bud glaucous	Operculu m shape & length	Fruit width	Juvenile leaf colour	Juvenile leaf shape	Juvenile leaf length in cm	Juvenile leaf width in cm	Seedling leaf shape	Seedling leaf length in cm	Seedling leaf width in cm
				Bark smooth -	leaf venatio	n moderate t	o dense – oi	l glands island - fr	ruit with annular disc	c. free from th	e ovary roof -	seed red-brown	to brown, cubo	id to obliquely p	vramidal				
Eucalyptus seeana	Tree	Smooth	green	narrowly lanceolate to lanceolate to falcate	6.5-20	1-2.5	glossy- dull	7 or >7	pedicellate	not glaucous	long conical .7-1.2 cm	0.5-0.8	green	narrow lanceolate to lanceolate	8-12	1-1.5	linear- lanceolate	5-12	.8-2(2.6)
Eucalyptus interstans	Tree	Smooth	green	lanceolate to falcate	8-18	1-3.2	dull	7 or >7	pedicellate	no	long conical .8-1.1 cm	0.5-0.8	green	ovate to broadly lanceolate	5-14	3-6.5	ovate	5.5-8	2-4
Eucalyptus prava	Tree	Smooth	blue-grey to glaucous	lanceolate to falcate	5.5-16	1.5-3.7	dull	7	pedicellate	glaucous	long conical .7-1.1 cm	0.5-1	blue-grey	ovate	4.5-6.5	3-5	ovate	3-7	3-7
Eucalyptus bancroftii	Tree	Smooth	green to blue-green or grey- green	broadly lanceolate to lanceolate to falcate	10-26	(2)3-5	glossy- dull	7 or >7	pedicellate	not glaucous	long conical .7-1.5 cm	0.6-0.9	green	ovate	10-15	3-7	ovate- lanceolate	5.5-14	2-5.5
Eucalyptus parramattensis subsp. decadens	Tree	Smooth	green	lanceolate to falcate	8-20	1.5-3	glossy	7	pedicellate	not glaucous	.68 cm	0.7-0.9	grey-green to green	lanceolate	6-13	1.7-3	lanceolate	7.5-11	1.5-3.2
Eucalyptus parramattensis subsp. parramattensis	Tree	Smooth	green	narrowly lanceolate to lanceolate to falcate	7-15	1.2-2.5	glossy	7	pedicellate	not glaucous	short conical .37 cm	0.5-0.7	grey-green to green	lanceolate	5-10	.5-3	lanceolate	7-12	1-2.7
Eucalyptus parramattensis var. sphaerocalyx	Tree	Smooth	green	lanceolate to falcate	7-16	1.5-3	glossy	7	pedicellate	not glaucous	rounded to short conical .24 cm	0.5-0.7	grey-green to green	lanceolate	5-10	.5-3	lanceolate	6-13	1.2-4
		_	Bark m	ostly smooth – le	eaf venation	moderate to	dense – oil g	glands island - sta	mens mostly erect -		united to ova	ary roof – seed d	ark brown to bl	ack, cuboid to ob	oliquely pyram	idal			
Eucalyptus nandewarica	Tree or mallee	smooth or rarely partly rough	green to grey-green	lanceolate	5-15	.8-3	dull	7 or rarely 3	shortly pedicellate to sessile	not glaucous	long conical .36	0.5(0.6)	green	ovate to lanceolate	6-11	1-2.5	broadly lanceolate	10-12.5	3-5
Eucalyptus dwyeri	Tree or mallee	smooth or rarely partly rough	green to grey-green	lanceolate to falcate	7-15	1-2.7	glossy or dull	7	shortly pedicellate to sessile	not glaucous	long conical .38 cm	0.5-0.7	green	linear to lanceolate	5-15	1-2.5	lanceolate	7-12	1-2.6
Eucalyptus dealbata	Tree	smooth or rarely partly rough	blue-grey to glaucous	lanceolate to ovate	5.5-14	1-4	dull	7 or >7	pedicellate	glaucous	conical .48 cm	0.5-0.7	blue-grey to glaucous	orbicular to ovate	6.5-8	3-4.2	orbicular to ovate	5-11.5	3.3- 6(6.5)
Eucalyptus vicina	Tree or mallee	smooth or rarely partly rough	green	lanceolate to falcate	5.5-16	.7-2.7	glossy or dull	7	sessile to shortly pedicellate	not glaucous	conical to rounded .47 cm	0.4-0.8	green to blue-grey to glaucous	ovate	5-9	2.5-4.8	ovate	5-10	2.5-5
Eucalyptus flindersii	Mallee or rarely tree	smooth or rarely partly rough	green to grey-green	narrowly lanceolate to lanceolate to falcate	(5.5)9.5- 18	1-3	glossy or dull	3, rarely 7	pedicellate	not glaucous	conical to rounded .47 cm	0.4-1	grey green	ovate	4.5-11	2.5-7	ovate to deltoid	7-10	3.5-8
Eucalyptus gillenii	Mallee	smooth	green to grey-green	linear to narrowly lanceolate	(7)8- 18(19)	.9-2.6	dull	7 or >7	pedicellate	not glaucous	conical to rounded .5-1.2 cm	0.6-1.2	grey-green to green	ovate to lanceolate	7-10	1-2	lanceolate	(6)8- 12.5(13)	(.8)1.5- 3(3.5)
Eucalyptus nudicaulis	Mallee	smooth	green to grey-green	linear to narrowly lanceolate	7-18(19)	1-2(2.5)	dull	7	pedicellate	not glaucous	conical to horn- shaped 0.7-1 cm	0.6-0.9(1)	grey-green to green	narrowly lanceolate to lanceolate			narrowly lanceolate	6-13	0.8-2
Eucalyptus infera	Mallee	smooth	green	broadly lanceolate to elliptical to ovate	6-11	2-4(5)	glossy	7-15 or >15	pedicellate	not glaucous	long conical .8-1.1 cm	0.4-0.8	green	orbicular to ovate, often with shallowly crenulations on the margin	4-7	4-7	ovate	5-8	4-7
Eucalyptus terrica	Tree	rough or partly rough	green to grey-green	narrowly lanceolate to lanceolate	(5)7.5-13	.9-1.7(2)	dull	7	pedicellate	not glaucous	long conical .46 cm	0.5-0.6 disc flat	green to grey-green to glaucous	lanceolate	6-14	1-2.5	ovate to lanceolate	5.5-13	1-3.8
Eucalyptus chloroclada	Tree	rough to partly rough to smooth	green to grey-green	lanceolate	8.5-18	1-3.5	glossy or dull	7	pedicellate	not glaucous	long conical .59 cm	0.4-0.7 disc flat	green	ovate			ovate	4-8	2-5
Eucalyptus blakelyi	Tree	smooth or partly rough	green to blue-grey	lanceolate to falcate	6-20	.7-4.5	glossy or dull	7 or >7	pedicellate	Glaucous and non- glaucous	long conical .5-1.1 cm	0.4-0.8	green to blue-grey	ovate to orbicular	4-14	3.3-10	ovate to orbicular to elliptical	(4.8)6-15	2.5-7

	Habit	Bark – rough or smooth	Adult leaf colour	Adult leaf shape	Adult leaf length in cm	Adult leaf width in cm	Adult leaf sheen	Umbel bud number	Bud pedicels	Bud glaucous	Operculu m shape & length	Fruit width	Juvenile leaf colour	Juvenile leaf shape	Juvenile leaf length in cm	Juvenile leaf width in cm	Seedling leaf shape	Seedling leaf length in cm	Seedling leaf width in cm
Eucalyptus kabiana	Mallee or rarely tree	smooth or partly rough	green	narrowly lanceolate to lanceolate to falcate	6-15	1-2.3	glossy or dull	7 or >7	pedicellate	not glaucous	long conical .79	0.5-0.7	glaucous	lanceolate	6-8	2-3			
Eucalyptus glaucina	Tree	smooth	glaucous to blue-grey to green	lanceolate	9-17	2-4.2	dull	7	pedicellate	glaucous	long conical .5-1 cm	0.6-1	glaucous or green	orbicular to ovate	6-10	5-6.5	orbicular to ovate	6.5-10	4.5-8
Eucalyptus amplifolia subsp. amplifolia	Tree	smooth or partly rough	green	broadly lanceolate to lanceolate to falcate	7.5-17	1.6-7	glossy dull	7 or >7	pedicellate	not glaucous	long conical .59	0.4-0.6	green	orbicular to ovate to deltoid	5-22	3.5-18	orbicular to ovate to deltoid	7-11	5-8(10)
Eucalyptus amplifolia subsp. sessiliflora	Tree	smooth or partly rough	green	lanceolate to falcate	7.5-22	1.3-3.5	glossy or dull	7 or >7	sessile	not glaucous	long conical .69 cm	0.5-0.6	green	orbicular to ovate to deltoid	4.5-16	3.5-11	orbicular to ovate to deltoid	7-10	4-8(10)
Eucalyptus tereticornis subsp. mediana	Tree	smooth or partly rough	green	lanceolate to falcate	8-20	(1)1.2-3.5	glossy or dull	7	pedicellate	not glaucous	long conical .5-1.2 cm	0.6-1	green	ovate to lanceolate	5-8	3-5	ovate	6.5-11.5	3.5-8.5
Eucalyptus tereticornis subsp. tereticornis	Tree	smooth or partly rough	green	lanceolate to falcate	8-22	1-3(3.5)	glossy or dull	7 or >7	pedicellate	not glaucous	long conical .8-2.2 cm	0.4-0.8	green to blue-green	ovate	6-13	3-8	ovate	5-12.5	2.7-6.5
			Bark smooth	- leaf venation	moderate to	dense – oil a	lands island	- stamens erect	to variously inflexe	d - fruit with di	sc united to o	varv roof – seed	vellow to vellow	-brown. cuboid	to obliquely by	ramidal			
Eucalyptus camaldulensis subsp. simulata	Tree	smooth	green	lanceolate	(8)11-25	(1)2-3.5	glossy or dull	7 or >7	pedicellate	not glaucous	long conical	0.5-0.8	green rarely glaucous	ovate to lanceolate			ovate to lanceolate	7-14.2	2-4.5
Eucalyptus camaldulensis var. camaldulensis	Tree	smooth or partly rough	green to blue-green	lanceolate to falcate	5-30	.7-3.2	glossy or dull	7 or >7	pedicellate	not glaucous	beaked	0.4-1	blue-green to green	lanceolate	8-18	1.3-2.5	ovate to lanceolate to elliptical	7.5-15.5	1.3-4
Eucalyptus camaldulensis var. obtusa	Tree	smooth	green to blue-green	narrowly lanceolate to lanceolate to falcate	5-28	.8-3.6	glossy or dull	7 or >7	pedicellate	glaucous and non- glaucous	conical to rounded	0.4-0.9	blue-green to blue-grey to glaucous	ovate to lanceolate	7.5-13	2.5-4.5	ovate to lanceolate	6-18	.8-5.5
			Park normally	rough loof you	ation moder	eto to donco	oil alanda i	cland stamons	irregularly inflexed	fruit with dies	united to eve	ary roof good n	noctly blook (rore	alv vellow) oubo	id to obliquely	nyramidal			
Eucalyptus rudis subsp. cratyantha	Tree	wholly rough to partly rough to rarely smooth	green	lanceolate to falcate	7-18	1-3.5	glossy or dull	7 or >7	pedicellate	not glaucous	conical .57 cm	1.1-1.4	grey-green to rarely glaucous	orbicular to ovate to deltoid	2.5-7	2-5.5	ovate to deltoid	6-9	4.5-8.5
Eucalyptus rudis subsp. rudis	Tree	wholly rough to partly rough to rarely smooth	green	lanceolate to falcate	7-18	1-3.5	glossy or dull	7 or >7	pedicellate	not glaucous	conical .48 cm	0.7-1	grey-green to rarely glaucous	orbicular to ovate to deltoid	(2.5)5-7	2-5.5	ovate to deltoid	6-9	4.5-8.5
				Bark rough	n – leaf venat	ion moderate	– oil glands	island - stamens	s erect - fruit with di	sc united to ov	ary roof – see	ed dark brown to	hlack cuboid to	obliquely nyrar	midal				
Eucalyptus brassiana	Tree	partly rough or wholly rough	green	narrowly lanceolate to falcate	10-22	1-2.5(2.8)	glossy	7	pedicellate	not glaucous	long conical 0.8-1 cm	0.7-1.2	green	ovate to lanceolate	(6)8- 17(21.5)	(3)4-7	lanceolate	7-18	1.5- 3(4.2)
Eucalyptus lockyeri subsp. exuta	Tree or rarely mallee	partly rough	green	lanceolate	8-19	.8-2	glossy or dull	7	pedicellate	not glaucous	conical	0.6-0.8(.9) disc flat	green	lanceolate	5.5-7.5	.9-1.3(1.6)	linear to lanceolate	5.5-8	.5-1.5
Eucalyptus lockyeri subsp. lockyeri	Tree or rarely mallee	wholly rough or partly rough	glaucous to blue-grey to rarely green	broadly lanceolate to lanceolate	(7)9-15	(1.3)2- 3.5(4.5)	dull	7	pedicellate	glaucous	long conical or beaked .8-1 cm	0.6-1(1.2) disc flat	glaucous to blue-grey	ovate lanceolate	8-16	3.5-5.5	ovate to lanceolate	8.4-14(16)	1.6-5(6)
Eucalyptus ammophila	Mallee or rarely tree	partly rough, wholly rough	green to grey-green	lanceolate	6.5-13.5	1.5-2.5(3)	dull	7 or >7	pedicellate	not glaucous	conical 0.6 cm	0.6-0.9	grey-green to green	ovate to lanceolate	6-8.5	2.2-3.6	lanceolate	7-14	(.5)1-3
Eucalyptus exserta	Tree or mallee	wholly rough normally to the small branche s	green to grey-green	narrowly lanceolate to lanceolate	6.5-18	.7-2.7	glossy or dull	7	pedicellate	not glaucous	long conical .48 cm	0.4-0.8	grey-green to green	linear to lanceolate to falcate	6-19	.3-1.3	linear to lanceolate	6-19	.3-1.6
Eucalyptus morrisii	Tree or mallee	wholly rough or partly rough	grey green	lanceolate	5.5-14.5	.8-2.1	dull	3 rarely 7	pedicellate	not glaucous	conical .57 cm	0.7-1.1	green	linear to lanceolate	6-12	.5-1.2	linear lanceolate	6-15	.4-2.3

	Habit	Bark – rough or smooth	Adult leaf colour	Adult leaf shape	Adult leaf length in cm	Adult leaf width in cm	Adult leaf sheen	Umbel bud number	Bud pedicels	Bud glaucous	Operculu m shape & length	Fruit width	Juvenile leaf colour	Juvenile leaf shape	Juvenile leaf length in cm	Juvenile leaf width in cm	Seedling leaf shape	Seedling leaf length in cm	Seedling leaf width in cm
(In Brooker's A N	lew Classifi	ication of the	Bark smo e genus <i>Eucaly</i>	ooth – leaf venatio ptus, placed in S	on dense – c ubgenus <i>Sy</i>	oil glands isla mphyomyrtus	nd and inter s, Section <i>E</i>	<i>csertaria</i> , Series C	ens inflexed – fruit wit Connexentes, howeve	r, because th	e species in t	he ovary roof – so his group have fr	eed flattened o uit with an ann	void to obliquely ular disc and ba	pyramidal, to rk that is often	othed granular in text	ure, maybe bette	er placed in Se	ction
Eucalyptus hallii	Tree	smooth	green	lanceolate	(9)12- 17(21)	(1.5)2- 3.5(4.5)	glossy or dull		sessile to shortly pedicellate	not glaucous	conical to rounded	0.6-0.8	green	ovate to lanceolate	12-22	4.5-9	ovate to lanceolate	7-14	2.5-6
Eucalyptus proviniensis	Tree	smooth	green	lanceolate	10-15	2.5-4.5	dull	7	sessile to shortly pedicellate	not glaucous	rounded	0.7-1.1							
(In Brooker's A New Cl	assification	of the genu	Bark smooth is Eucalyptus, p	– leaf venation de blaced in Subgen	ense to very	/ dense – oil g omyrtus, Sect	lands inters ion <i>Exsertal</i>	ectional or absen ria, Series <i>Subex</i> s		use the spec	with annular ies in this gro	disc, free from th oup have fruit with	ne ovary roof – n an annular dis	seed flattened, ±	ovoid in shapo	e, toothed th a ± ventral hil	um, maybe bette	r placed in a n	ew Section
Eucalyptus alba var. Iustralasica	Tree	smooth	green	lanceolate to rarely ovate	8-18.5	(1.8)2.5- 4.5(8)	glossy or dull	7	of their ov pedicellate	not glaucous	rounded to shortly	0.5-0.8	green	ovate	10-18	6-13.5	ovate	7-10.8	4-6.2
Eucalyptus bigalerita	Tree	smooth	green to grey-green	orbicular to deltoid to	(6)9- 15(19)	(5)7-15	glossy or dull	7	sessile to shortly pedicellate	not glaucous	rounded to shortly	(.6)0.8-1.2(1.4)	grey-green	deltoid to cordate	7-18	6.5-16			
Eucalyptus olatyphylla	Tree	smooth	green to grey-green	orbicular to deltoid to cordate to rarely ovate to rarely broadly lanceolate	5-21	3.5-12	dull	7	sessile to shortly pedicellate	not glaucous	beaked conical to rounded	0.6-1	green	deltoid to cordate	9-20	6-16.5(17)			
Eucalyptus tintinnans	Tree	smooth	green to grey-green	orbicular to deltoid to rarely cordate to rarely ovate	5.5-11	3.5-6(8)	dull	7 or >7	sessile to shortly pedicellate	not glaucous	rounded to shortly beaked	0.5-0.6							
Eucalyptus houseana	Tree	smooth	green	lanceolate to falcate	(8.5)9-19	(1.5)2- 3.6(4.5)	dull	7	sessile to shortly pedicellate	? glaucous	conical to rounded to shortly beaked	0.4-0.5(.6)	? glaucous	ovate to elliptical	8-13	5-9	ovate	4.5-10.5	2.3-6
Eucalyptus apodophylla	Tree	smooth	blue-green to grey- green to glaucous	elliptical to ovate to broadly lanceolate Leaves sessile (rarely shortly petiolate)	7-20	(3)3.6-9	dull	7	shortly pedicellate	glaucous	rounded	0.4-0.6(.8)	glaucous	ovate to elliptical	7-15	4-9	ovate to elliptical	4-7	2.7-4.7
(In Brooker's A New C	lassificatio	Bark on of the gen	s smooth – leaf us <i>Eucalyptus</i> ,	venation dense t placed in Subge	o very dens	e – oil glands yomyrtus, Sec	intersection tion Exserta	nal or absent – bu aria, Series <i>Sub</i> ex	ds ± ovoid to obovoid sertae, however, bec	ause the spe	ruit with annu cies in this gr	lar disc, free from oup have fruit wit	n the ovary roo th an annular d	f – seed obliquel isc and obliquely	y pyramidal in y pyramidal se	shape, toothed ed with a ± term	inal hilum, mayb	e better place	d in a nev
Eucalyptus nooreana	Tree or mallee	smooth	green to grey-green to glaucous	elliptical to ovate to orbicular to cordate to rarely lanceolate	(3)6- 12(13)	3-8	dull	7	Section of the sessile to rarely shortly pedicellate	ir own) glaucous	conical	0.6-0.9	grey-green to glaucous	orbicular to ovate to elliptical to cordate			ovate to cordate to deltoid	4-9.3	2-5.3
Eucalyptus herbertiana	Tree or mallee	smooth	green to grey-green	lanceolate to falcate	8-22	1.2-2(2.6)	dull	7 or rarely 3	sessile to shortly pedicellate	not glaucous or rarely	conical	0.4-0.6	grey-green to glaucous	ovate	7-10	3.5-6.5	ovate to lanceolate	5.5-11	2.5-5
Eucalyptus cupularis	Tree	smooth	green to grey green	lanceolate to falcate	10-23	.9-2.7(3.5)	dull	7	sessile to rarely pedicellate	glaucous glaucous	conical to rounded	0.7-1.2	grey-green to glaucous	ovate	8-14	4-8	ovate to lanceolate	5.5-14	1.3-7
Eucalyptus glomericassis	Tree	smooth	green	lanceolate to falcate	(10)12- 25	1-2(3)	glossy	7	pedicellate or rarely sessile	not glaucous	conical to rounded	0.6-0.9	grames are				ovate	5-8	2-5.5
Eucalyptus gregoriensis	Tree or mallee	smooth	green to grey-green to glaucous	narrowly lanceolate to lanceolate to falcate	8-17(22)	1.2-3	dull	3 or rarely 7	sessile	not glaucous or rarely glaucous	conical to rounded	0.5-0.6(.7)	grey-green to glaucous	ovate to lanceolate	8-18	4-9	ovate to lanceolate	6-12	2.5-5.5
Eucalyptus pantoleuca	Tree	smooth	glaucous	ovate to orbicular to deltoid	(7)9- 15(17)	(5.8)7-16	dull	3	sessile to pedicellate	glaucous	rounded	1.5-2.4	grey-green to glaucous	orbicular to deltoid	9.5-15	10-15.5	ovate to elliptical	4.5-7.5	1.6-3
								enation very dens	e - oil glands usually				1						
Eucalyptus rupestris	Tree	smooth	green	elliptical to ovate to broadly lanceolate	3.7-7.5	1-2.5(3)	dull	7	shortly pedicellate	not glaucous	conical to rounded	(.2)0.3-0.4	grey-green to green	orbicular to ovate	(3.5)5-7	3.5-8			
Eucalyptus kenneallyi	Tree	smooth	green to grey-green	narrowly lanceolate	6-11	0.7-2	dull	7, rarely 3	pedicellate	not glaucous	conical	0.3-0.35							

	Habit	Bark – rough or smooth	Adult leaf colour	Adult leaf shape	Adult leaf length in cm	Adult leaf width in cm	Adult leaf sheen	Umbel bud number	Bud pedicels	Bud glaucous	Operculu m shape & length	Fruit width	Juvenile leaf colour	Juvenile leaf shape	Juvenile leaf length in cm	Juvenile leaf width in cm	Seedling leaf shape	Seedling leaf length in cm	Seedling leaf width in cm
Eucalyptus umbrawarrensis	Tree	smooth	green	narrowly lanceolate	6-12	0.6-2.2	glossy	7	pedicellate	not glaucous	conical to beaked	0.3-0.4 disc narrow, descending	blue-grey to green	ovate	4-10	3-6.5	ovate	4.5-7	2.5-4
Eucalyptus leucophloia subsp. euroa	Tree or rarely mallee	smooth	green to grey-green to blue-grey to glaucous	lanceolate to ovate	5-9(12)	1-3.5(4)	dull	7 rarely >7	sessile to shortly pedicellate	glaucous and not glaucous	rounded to bluntly conical	0.4-0.6 valves prominently exserted	blue-grey to glaucous	ovate to deltoid to orbicular	3-7.5	3-7.5	deltoid to orbicular to rarely ovate	3-6.5	3.2-6.2
Eucalyptus leucophloia subsp. leucophloia	Tree	smooth	green to grey-green to blue-grey to glaucous	lanceolate to ovate	4-8.5	0.9-2.3	dull	7 rarely >7	shortly pedicellate	glaucous and not glaucous	rounded to bluntly conical, rarely beaked	0.4-0.6 valves enclosed or near the rim	glaucous	ovate to deltoid to orbicular	3.2-7	3-8.5	deltoid to orbicular to rarely ovate	3-6.5	3.2-6.2
Eucalyptus confluens	Tree	smooth	green	lanceolate to rarely falcate	6-15(17)	0.9-2.2	glossy	7	sessile to shortly pedicellate	not glaucous	rounded to bluntly conical	0.6-0.7 disc broad					ovate	3.2-7	2-4.5
Eucalyptus brevifolia	Tree or rarely mallee	smooth	blue-grey to glaucous	lanceolate to broadly lanceolate to ovate	5-11	(0.9)1.5- 2.8(5)	dull	7	sessile to shortly pedicellate	glaucous and not glaucous	rounded to bluntly conical	0.6-0.9 disc broad, flat to slightly ascending	glaucous	ovate to deltoid to orbicular	4-7	3-7	ovate	4-7	3-5.5
Eucalyptus ordiana	Tree or mallee	smooth	glaucous to grey-green	ovate to broadly lanceolate	(3.5)6-9	2-8	dull	7	sessile to shortly pedicellate	glaucous	conical to beaked	0.5-0.7	blue-grey to glaucous	orbicular	4-8	4.5-10	orbicular	3-4	2.8-4