Herne Bay

[TR 185 685]–[TR 224 693]

Introduction

Herne Bay has yielded one of the most diverse fruit and seed floras from the Eocene London Clay. More than 130 species have been reported to date, and include six genera that are unique to here.

The palaeobotany of the Palaeocene and Palaeocene–Eocene transition strata at Herne Bay is discussed in Chapter 7. However, the site is also of considerable interest for early Eocene palaeobotany. Plant fossils are known from the A2 division of the London Clay Formation and were first described in detail by Reid and Chandler (1933), with further records provided by Chandler (1961a, 1964). Most of the species are listed by Cooper (1977) and Collinson (1983b), the latter including illustrations of some of the characteristic taxa. Brett (1972) described petrified wood from here.

Description

Stratigraphy

The fossil-bearing beds dealt with here are in the A2 division of the London Clay (*sensu* King, 1981) and are thus from a different stratigraphical level than Sheppey (divisions D and E) and Bognor (divisions B1 and B2). Further details of the stratigraphy here can be found in the previous chapter.

Palaeobotany

The most abundant fossil plants at Herne Bay come from the London Clay Formation. Collinson (1983b) states that over 130 species of angiosperm fruits and seeds have been found here (see (Table 8.1)). In addition, rare conifer fragments occur: *Cupressinites curtus* Bowerbank (cypress family) and *?Pinus macrocephalus* (Lindley and Hutton) Gardner (pine family).

Interpretation

Herne Bay has yielded one of the best London Clay floras in Britain (Table 8.1); see also (Figure 8.13) and (Figure 8.14), equal in diversity to that at Bognor and only being significantly bettered by the classic Sheppey flora. It adds considerably to our understanding of the biodiversity of the paratropical rain forests growing in Britain during early Eocene times, with 37 species, five genera and two families having only been found in Britain in the London Clay at Herne Bay (Collinson, 1983b). It is furthermore the type locality for 38 species and for the genera *Palmospermum, Shrubsolea, Sapindospermum, Citrispermum* and *Palaeobruguiera* (also for *Jenkinsella*, which is now included within *Nyssidium*; (Figure 8.13)).

Of the two unique families mentioned by Collinson (1983b), the alangias are represented by a single fruit described and figured by Chandler (1961a, p1. 27, figs 4 and 5). Although extremely rare, the one known example from here was almost identical to that of the living *Alangium*, a genus of mainly trees and shrubs found throughout most of the tropics. The determination to *Alangium* was accepted by Mai (1970) in his revision of the group. Although not known from any other British flora, *Alangium* has been described from the Eocene Clarno Beds of Oregon (Manchester, 1994) and Geiseltal flora of eastern Germany (Mai, 1976), and the Oligocene Brandon Lignite of Vermont (Eyde *et al.*, 1969).

The second unique family at Herne Bay according to Collinson (1983b) is that of the posidonias, which contains rare aquatic angiosperms that today are only found around the Mediterranean and the southern coast of Australia. Such a disjointed distribution suggests that it was more widely occurring in the past but according to Collinson *et al. (1993b*), its fossil record is very poor. The Herne Bay fossils consist of putative rhizomes with helically arranged ridges and pits

(Chandler, 1961a), which are very similar to fossils from the Eocene strata of France that Fritel (1909) claimed to be indistinguishable from the rhizomes of living *Posidonia*.

Of the other genera that are unique as London Clay fossils to Herne Bay, two are living genera: *Calycocarpum* (moonseed family) and *Talauma* (magnolia family). The former genus is known today from just one species, a deciduous liana from south-western North America (*C. lyonii* Nutt). The one specimen tentatively assigned to the genus by Chandler (1961a) was indisputably a distinctive member of the Tinosporeae section of the moonseeds, but the preservation was not sufficiently good for an unequivocal generic assignment and Manchester (1994) has suggested that it might belong to a different genus.

Talauma is a genus that was used for a group of tropical lowlands plants, which are very similar to *Magnolia*. Chandler (1964) described a single seed from Herne Bay that was very similar in form and structure to that of *Talauma angatensis* (Blanco) F.-Vill. Later (Chandler, 1978) she referred to it as a 'convincing specimen of the lowland *Talauma'*. It has been argued that the living *Talauma* is insufficiently different from *Magnolia* to justify a generic separation (Nooteboom, 1985) and the taxonomic position of the Herne Bay fossil may have to be reconsidered in the light of this. Nevertheless, it will almost certainly remain distinctive at the specific or subgeneric level.

Sbrubsolea was based on a single specimen of a large seed with clear characteristics of the rue family (Reid and Chandler, 1933). It is much larger than the seeds of most living plants of this family and was placed in its own form-genus. Knobloch and Mai (1986, 1991) recognized *Sbrubsolea* in the Upper Cretaceous Series of the Czech Republic.

Chandler (1961a) described two species of what she intepreted as embryos of a red mangrove (Rhizophoraceae). They are broadly similar to those of the living *Bruguiera*, one of the mangoves growing today in Asia and Africa, but there are sufficient differences to justify placing the fossil embryos in a separate form-genus, *Palaeobruguiera*. Wilkinson (1983, fig. 2a,b) figured starch grains in the cortical tissue of the hypocotyls of *Palaeobruguiera*. *Palaeobruguieria* was among the genera listed by Collinson (1983b) as unique in the London Clay to Herne Bay, although Wilkinson (1983) has since recorded examples from Sheppey.

Herne Bay has yielded the most abundant examples of the fruit originally described as *Jenkinsella apocynoides* Reid and Chandler (Figure 8.13), which Crane (1984) has reassigned to *Nyssidium arcticum* (katsura-tree family). Although more complete material is known from other localities such as Cold Ash (see Cold Ash GCR site report, this volume), the Herne Bay pyritized petrifactions provide additional details of the fruits of this important Palaeocene–Eocene plant.

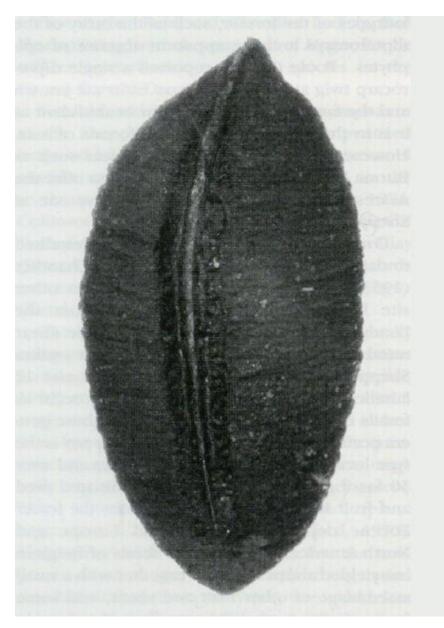
Conclusions

Herne Bay has yielded an internationally important fruit and seed flora of early Eocene age. Among the London Clay floras, it is second in diversity only to the classic Sheppey flora, having yielded over 130 species, 32 of which are unknown from Sheppey. The flora has been particularly important for the study of the alangia, posidonia, mangrove and katsura-tree families in these floras. It provides important insights into the paratropical rain forests that covered much of southern Britain about 51 Ma ago.

References

	(Speiller	Date be	ther.	(Males)	Tank	Sprine .	dame for	(Name	(Heart)	bash .	Marina .	No. be	(Marc)	-
-	Compton and inter Charden	100	-	1		Version Network and the set of th	-			-	Onefficientel Gaude, 179	-	-	
	and Chardiet (Asside) Descention of photoset had not					I share throbs					Amaginal continue Roll and			
	Party and address of the owner.			-		F supervise that and charden		1.1			mater Daniller			
	Lower strength Ard and Souther	-	-	-		E president Chandral					A standard first and i bushing	- A		
	Charafter 2 produces (but and Charafter)	-	1.0			respect Spatia Andre Handen Andre Handen Antonio Kanden Antonio Kanden Antonio Kanden		-	1.0	Permanent	And the second s			1.5
	charder					F adgridules (builds	-			Terroriter of	distances appropriate linear and			
	1.7. advergious had no bands.			-C		Adult providences had not limited	. A	DC:		Annual State	A statement for an lander troughput production for an	- 1 -	-	\Rightarrow
	Charden Annual And and Charden Annual					1 Arginus (Red and Chauffel)	1.1				Conceptional georgenites from and Characteries		1.0	- A
	Charden Marchines, 1995	-	1			A produce of the original statements Mark with the second statements and the second statements and the second statements and the second statements in the second statements and the second statements				Sector .	Analysis And a second second second second second second s			
	and Charden 7 adjudges fait and Thursday 2 adjudges fait and Thursday	1.0.4.0				Manhanapper op. Charden, 1978	_	1	_		A Augustance Charden	× .		
	Product And and Deaths				Second .	Solid group of Automatics of Mr.					A comparison from and (Specified			1
	States and a state of the state				begrate.	Persing alterative Standar see Standar, 1993 Deservice alternatives: Canada a aggebraic Role and Canada a geographic Role and Canada a geographic Role and a searchine Chandra a searchine		1.0			Approvement (Sacolite anguert Association anguert Associ			
	Onestin Advantages from and	-			Barmanna .	Records approx and others. Character		100			A shipper had and Danks			1
	Character second and the set					A supplement that and character		-	100		A additional field and Chardler	_		-
	Accurate and a second s	-				8 mail: Charafter		1.1			A adjustance to a secondar	_		
	Versite V					Astandorary Agentein (Arabic		1.1	100		A setument character			
	A complication had not limited			1000		Proper storighters starights (ked and Charaller		1.0			R restor Red and Charafter	-		
	A completence Chandre				-	Conder Translitter Lannaux Resoluted Inner Liberthe, 27% Comparison relativistic Rel and Description	1		100		A showing host and Charden			
	A approach local and Chandler		1.00		Capacitic on Colorado	Company where the sale and			100		A Approve his set limber			
	A publican line and Chardler	1		1.1		College-text-led-livest Rel'ard		-			Cognitional and the set of the set		-	-
	A commission field and Chardler		-	1.0	a taxes photose	Charles		-	-		Technolis untable investment one			
	1 consistent foit and familie 1 consistent and familie 1 construction for any familie 1 construction for any familie 1 construction for any familie (construction for any familie (construction for any familie)	_			phylania	Charles Ander son Statement (1998) Fach per Villagen, 1988 Frankling andreas (Frankling)				-		-		
	Frame water three and Charders		1	1.00		Indiction to the lot and	-				Note-second the Research of Second and Checkson processing the second se			1.0
-	Andread and Andread Andread			1	Constraint -	Robotic supristance for out					and Chernitel			
	Patronale Appoint Art at	1.1.8.1.			Retained.	1 Instantion of Section Stational and Son, 1989					The Article School and and			1.1
hinter .	degreeners a Charden 1791		1	-		Personal Property in which the Person of	4.7	-		Patrogener .	Automptories gradefunction feed			
		-				And and Cheveler P. mobilesters has not the day together heaters has not	1	1.0		-	Construction of the Charles			
	(Section Couples and section in the US of the Couples and section in the US of the Couple for the Long Section in the Section in the Couple of the US of the Couple of the US of the US of the US of the Couple of the US of the U			1		Langence Monitorie front and Charaller			*		10 Augustus Charles		1	
	1. Antonia they are Charafter	-		1.1		Ration include his or Darks	1				A Real Property lies and the real Property lies			1
	Straftene College, 161, 1884		-	-		R parts flor and builts	1	1000			and Walker, 1984		-	1.0
	Charles and a set of the				Concession of	Incompare the index limits	1	1			Antoine controls hourses.	-		1
						Mader Martin Roberts Martin Martin Agentis Martin Martin Agentis Martin			. ×		An and a second			
			-	-	-	L merghden Daube	-		-	-	Lo and the Constant			-
Common State	And a second sec	Same Real	1	and the second	Sandy.		Date for	August.	Strates.	farming - come	Spectra Antonio como bala sel Anneles Antonio basedante bala sel	Acres for	Search .	-
Married Woman	Clouder report Claudes, 1978		1.1	-		 Appendix Recentals Recard Dealer Dealer Dealer<					Conversion in such as in the local sectors of			
	Subgroup & construct that put					Carbon Charden			1		And the set of the set			- 3
	Control Control of Control Con	1.0				/ pairs that and thanks	- A		1		A general day for any family			
	Concerns that and Charles			1		A produced from and (handle)	- 1		1		C. regress had and Darahy	-		- 1
	Antepho coline concernationers					And and Address of the other					Comparison of the second second second			
Destate	Address of the party of the other	-	-	-		A matching had and lineafter					Sandar A specificare Chastler A strain Chastler			-
				-		A scents had and Deadler			1.0		department Autom department			
and the second second	Interprete graditionist had not	1				Contractory Darroller		1			and the second s		1	
1. A. A.	April 10 general party on Red			-		 Antenders from and Charides Antenders from and Charides 					A second set from the set of the set of the second set of the second sec			
	A descence for an interface the inter- temportant of the interface the inter- ment of the interface the interface the inter- section of the interface the interface the inter- section of the interface the interface the interface of the interface the interfa		-			1 avenues boar and charafter					A protein this and Charles			- 3
	A regret Danille	1.1	_			Anterior comment light		1			A physical part and the state of the state o			
	A comparison had not baseline	1				Astrophytopics and gas had and Charden					contraction from these and (handhad	-		
	A failure fairt and Charoliter					Annual Indiana (had and (handha)		100	1	Lane .	Cambre		1.1	
	A other had not limited					And and Ontarias Real and					Character of the other			- 5
	A subplication that be been been been been been been been								1.	lower	Condex Condex As an experiment for the first for and Consider Conserve relianders from and			
	A dissipation first and Charitles			1		Compress that are thanker			10	Gebraria	manageria intications fear and			1
	Sath-Bolley and a Church	1.00			- Inglandarow				1.1		Another succession advances lives and		-	
	A sense had not have be					I sugar (Sandal)		_			Pandar Mante Martin Martin Statutionen diese bei an Ostationen geogenisation bei er Ostatio Martinen schlagenen bei an Martinen	-	-	-
	A discussion of Dardin					resp Revenues for all resp Revenues			-		and Chardler			
	A Characteristic Real and Characteristic					a supreme have and therefore			-		Concernations, in Supervised, Real and Street			
	Approache referantera detti anti					Contrast Character		+		Matchine	August agent for an Uniteda August agent for an Uniteda A cost Charles A Actual Charles A Actual Charles A Actual Charles			
				-		Charles 1911	1.00				A dense Charley			
-	States and the state	1.1		1		A adaption Changing and		Ł	×		Caroline			
	ed Charden Solf-paperson planetser bei ed Charden Societ	-		1	-	And Annual Supervised Annuals			1		Constant - paperties Touchts - the Analysis - Charles Merculand, Not and			- 0
	and i families					A result to Bull and Charlin			1		W Adapter (Remodencia, Not and		1	1
	- Mandar And exploring publications have	_		1		A present bot and chardle			10		A Aspense Strendsch, Son and		1000	
Real Property lies	and Charden					A paperson first and Decoder			- 1 - 1		A chicago liberatori			
	Content of the Content					- Cherriter					A Aspense Chapter		_	- 5
	1.1.1. Integering Charlie		1.1			A amplement Real and Chambles	1				A advectory had any Chapter		1.1	
	Annual and a state from the loss that			1		Cardin		-	-		A adaptation paint description		1.0	
hanne	and Waldow 1980'	1	-			Catterpre bade	1.1	1.1	1		A advertised and the set			
	Andrewson argumentation (health)					Condition of the second		- 1-		Bullacian .	Alexa percentral Not an Charles Argence (Arrowski) Not an Charles Argence (Arrowski) Not ar Argence (Arrowski)		1	
	The second secon	-				Card Chargen			-				-	-
Tanifa	(Species	Door Bu	Name .	Manager 1	ALC: N	hanna .	State Sec. 7	Same 1	Second 7	Family 1	April 1	See Sec.	April 1	-
Biorghouses .	Other Anterna (haulter		-	1	- and	Annual Constant Data (C. S.		-	-	family horize and	Agender Scopelitike and an planet franker.	-		
					and the second second	17% not the Bookway, 198, 1970.	-		-		Adapting Gaulte, NY			
	P. alora Chandler					Introdu advantation division							-	1
-	F up tot. (Witness 1981) Roberts			-							4. Annumber to and Charafter			1.0
1010	7 alone (Analos 7 al and Alfanama, 1985) Malan al Juntime growth fairs and Danilla 2. math fairs and Gamba		л.			I feasible (Bar to Res prof Battine)			1.20		Steen bala line			
	F data (Andre) F g tak (Niemen, 100) Anter to Institution provide And ext (Andre) C with their and Charder C with their and Charder I degramme fait are familie		х.	Ì	heater	Charactery Ray to Kay and Future 1980" Relativistical in stress Reid and Charactery Ref."	- 1		-			_	_	
100	 Antes (Sandar, 1980) Antes and Alfonson, 1980) Antes and Alfonson, 1980) Antes and Antes and Antella. Antes and Antella. Antespannis hold and Antella. Antespannis hold and Antella. Antespannis hold and Antella. Antespannis hold and Antella. 		×.	i	Spinson .	I handheir Barto Karped Father 1997 Shahradhad in disar Beid and Cheolait Bart Semilari ceremi beit and Cheolar	- 1		1.20					1
	Approvement that a second	3	•		Nonana Tenginana	Handher far in fan yn Pratine 1997 Chadrauteur ar ner fheir ar Chadras far Uranher far Frankrik far yn Chadra I meatferner fan yn Chadra Friedder fan yn Chadra			1.20		 corto: Remotanti Itali ani Ottalia desensato bei ani Disalte desensato bei ani Disalte 			*
	de la construir de la con	-			Notana Vegineen	Interface for the fact of Father Control of the second fact of Second and the second factors for a second factor second factors for a second factor second factors for a second factor relation for the second factor (1) Interpretent factors (1) I			1.20		 andre Romolault, Roll and Dealer downstreaks, Keit and Dealer partie (Romolault, Keit and Unable) bengtment (Romolault, Keit and 		*	1 1 1
	4. Annual trees local and Charafter Comparison and party Charafter				Nonana Vegetaran Nonan			Ŧ	1.20		 andre Romolault, Roll and Dealer downstreaks, Keit and Dealer partie (Romolault, Keit and Unable) bengtment (Romolault, Keit and 			
	4. Annual trees local and Charafter Comparison and party Charafter	*	*. * *		Norman Vegetaren Norman	Handley for to fix you'll faile and the second second field of the handley first of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the production of the second field of the second field of the second field of the production of the second field of the second field of the second field of the production of the second field		-	1.20		 andre Romolault, Roll and Dealer downstreaks, Keit and Dealer partie (Romolault, Keit and Unable) bengtment (Romolault, Keit and 	3	÷	
	4. Annual trees local and Charafter Comparison and party Charafter	*			Norma Solare Norma Norma Norma	Includes the total part Parties and the second sec			1.20		 arrise Annotacity Rail and Charles Annotacity Net and Charles Annotacity Net and Annotacity Net and Net Annotacity Net and Net and Annotacity Net and Net and Annotacity Net and Net and Annotacity Net and Net and Annotacity Net annotacity Net and Annotacity Net annonnon A	-		
	4. Annual trees local and Charafter Comparison and party Charafter					Note what is a new Not or bracket, Mr. Papelson construction of Sanda- papelson to the an Sanda- relations for an Sanda- relation for an Sanda- Sanda San		r			 arrise Annotacity Rail and Charles Annotacity Net and Charles Annotacity Net and Annotacity Net and Net Annotacity Net and Net and Annotacity Net and Net and Annotacity Net and Net and Annotacity Net and Net and Annotacity Net annotacity Net and Annotacity Net annonnon A	3	*	
	4. Annual trees local and Charafter Comparison and party Charafter	*			hanna Tapinan Name Tana Tana	Make share a second but and Sociality invasion concrete fact and Sociality invasion concrete fact and Sociality in and Sociality and Sociality in the second second second second second second second second second second second factor of general factor (Sociality Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitute Constitute Constitute Vision Constitute Constitute Visi		1	1.20		 and the second last of the second last			
	4. Annual trees local and Charafter Comparison and party Charafter	* * * *			hanna Tapinan Name Tana Tana	Make share a second but and Sociality invasion concrete fact and Sociality invasion concrete fact and Sociality in and Sociality and Sociality in the second second second second second second second second second second second factor of general factor (Sociality Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitute Constitute Constitute Vision Constitute Constitute Visi		1			1 comparison (Ed. 2) Condition of the second contract (Condition of the second contract (Condition) (Condition) (Condition) Condition of the second contract (Condition) of the second contr	4		
	4. Annual trees local and Charafter Comparison and party Charafter	* * *			hanna Tapinan Name Tana Tana	Make share a second but and Sociality invasion concrete fact and Sociality invasion concrete fact and Sociality in and Sociality and Sociality in the second second second second second second second second second second second factor of general factor (Sociality Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitu- Constitute Vision Constitute Constitute Vision Constitute Constitute Constitute Vision Constitute Constitute Visi					1 comparison (Ed. 2) Condition of the second contract (Condition of the second contract (Condition) (Condition) (Condition) Condition of the second contract (Condition) of the second contr			
****	 Annual Anna Carlos Carlo	* * * ***			Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the s		1			1 comparison (Ed. 2) Condition of the second contract (Condition of the second contract (Condition) (Condition) (Condition) Condition of the second contract (Condition) of the second contr	•		
	 Annual Anna Carlos Carlo	* * * *	· · · ·		Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the s					L carrier, Armschall, Sald all demokraski kara (Carlier Armschalt, Kara (Carlier Armschalt, Kara (Carlier Armschalt, Kara (Carlier Martine Martine Carlier Martine Ma			a se a seconda a succ
dana -	 Annual Anna Carlos Carlo	* * * ****	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	· ···· · · · · · · · · ·	Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the s					c unception hash (and a gamma hash near the host hash hash and hash hash hash hash hash hash hash has		-	a se a seconda a socia a
dana -	 Annual Anna Carlos Carlo	* * * ****			Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the s	-	*			c unception hash (and a gamma hash near the host hash hash and hash hash hash hash hash hash hash has	-	1	a se a source a source a
una a	 Annual Anna Carlos Carlo			· ···· ···· · ···· ···	Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-				c unception hash (and a gamma hash near the host hash hash and hash hash hash hash hash hash hash has	-	*	· · · · · · · · · · · · · · · ·
-	 Annual Anna Carlos Carlo				Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-	*			 and the second se			
	 Annual Anna Carlos Carlo				Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-	*			c unception hash (and a gamma hash near the host hash hash and hash hash hash hash hash hash hash has			
	 Annual Anna Carlos Carlo			· · · · · · · · · · · · · · · · · · ·	Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-	*		Pantinesi ba ber	 and the second se		-	
	 Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics Strandbard Statistics		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	· ···· · ···· · · ··· ·· ·	Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-	*		Pantinesi ba ber	 and the second se		-	
Arra	 Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics Strandbard Statistics			· ···· · · · · · · · · · · ·	Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o	-	*		Pantinesi ba ber	 and the second se		-	· · · · · · · · · · · · · · · · · · ·
ana a	 Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics (Statistics) Strandbard Statistics Strandbard Statistics		· · · · · · ·		Name Name Name Name Name Name Name	Note and a series that and the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series of the series the series of the series of the series the series of the series of the series o				Pantinesi ba ber	 and the second se		-	
	 Antonio de la construcción de la const		× ××		Name Name Name Name Name Name Name	Alexandra and Al				Pantinesi ba ber	 and the second se		-	
	 Antonio de la construcción de la const		x		Name Name Name Name Name Name Name	Alexandra and Al				Pantinesi ba ber	 and the second se		-	· · · · · · · · · · · · · · · · · · ·
	 Antonio de la construcción de la const		x		Name Name Name Name Name Name Name	Alexandra and Al				Pantinesi ba ber	 and the second se		-	The second secon
	 Antonio de la construcción de la const		* ** **** * *		Name Name Name Name Name Name Name	Alexandra and Al				Andreas (and) Andreas (and) Resolution (2011) An part of the second test (2011) Andreas (2011)		Ange State, 199 Ange State, 19		
	 Antonio de la construcción de la const	a and a second second	* ** **** * *	-	Name Name Name Name Name Name Name	Hannessen und Karl Mithemation and Karl Mithemation and Karl Mithematical And Karl Mithe				Andreas (and) Andreas (and) Resolution (2011) An part of the second test (2011) Andreas (2011)		Ange State, 199 Ange State, 19		· · · · · · · · · · · · · · · · · · ·
	 Anternational of a constraint of constraint of a constraint of a		* ** **** * *		Name Name Name Name Name Name Name	Hannessen und Karl Mithemation and Karl Mithemation and Karl Mithematical And Karl Mithe				Andreas (and) Andreas (and) Resolution (2011) An part of the second test (2011) Andreas (2011)		Ange State, 199 Ange State, 19		
	 Antonio de la construcción de la const	a a and and an		-	Name Name Name Name Name Name Name	Alexandra and Al				Andreas (and) Andreas (and) Resolution (2011) An part of the second test (2011) Andreas (2011)	 and the second se	Ange State, 199 Ange State, 19		

(Table 8.1) Angiosperm fruit, seed, wood and twig fossils from the Eocene London Clay GCR sites. Species and details from Reid and Chandler (1933) and Chandler (1961a), unless otherwise referenced. The family classification used here is summarized in Chapter 1 of the present volume.



(Figure 8.13) Locule cast of Nyssidium arcticum (= Jenkinsella apocynoides) preserved in pyrite, \times 7.5 (see Collinson, 1983b), from the Herne Bay GCR site. (Photo: M.E. Collinson.)



(Figure 8.14) Compound fruit of Platycarya richardsonii preserved in pyrite, × 3.5, from Herne Bay (see Collinson, 1983b). (Photo: M.E. Collinson.)