APPENDIX 1

List of calcareous nannoplankton taxa and their stratigraphical distribution

Species / Samples	fr1	fr2	fr3	fr4	fr5	fr6	fr7	fr8	fr9	fr10	fr11	fr12	fr13	fr14	fr15	fr16	fr17	fr18	fr19	fr20	fr21	fr25	fr28	fr29	fr30	fr31	fr32	fr 38	fr39	fr41	fr23	st1	st2	st3	st4	st5	st6	str2	str3	str4	str5	str6	str7	str8	str9	str10	str11	str12	str13	str14	str15	str16	str17	str18	str19	str20	Stratigraphical range of taxa (Young et al. 2014)
Assipetra sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.2	0	0	0	0	3.7	0	0	0	0	0	0	5.88	0	6.25	0	4.76	0	0	0	0	0	0	0	0	1.3	0	0	0	0	0	0	0	0	Early Berriasian (145.01Ma)-Campanian (72.05Ma)
Axopodorhabdus cylindratus (Noël, 1965) Wind and Wise in Wise and Wind, 1977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.3	0	0	0	0	0	0	0	0	2.8	0	0	0	0	0	0	0	0	0	0	0	4.26	0	0	0	0	0	0	0	0	0	0	0	Bajocian (170.30Ma)-NJ17a (149.09Ma)
Biscutum constans (Górka, 1957) Black in Black and Barnes, 1959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.8	0	2.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Bathonian (168.28Ma)-Late Maastrichtian (66.04Ma)
Cyclagelosphaera argoensis Bown, 1992	0	0	0	0	0	0	0	3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Tithonian (152.06Ma) - Hauterivian (130.77Ma)
Cyclagelosphaera deflandrei (Manivit, 1966) Roth, 1973	4.17	0	3.7	0	0	0	0	13.5	5.8	0	0	0	0	0	1.3	0	0	0	0	0	0	0	0	0	62.1	0	15.3	0	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Callovian (166.07Ma)-Hauterivian (130.77Ma)
Cyclagelosphaera margerelii Noël, 1965	2.08	18.4	11.1	19.2	41.7	10.3	4.2	38.9	25.1	25	0	9.1	11.2	14.8	2.9	0	23.1	16.7	13.5	16.7	22.6	0	0	15.3	0	0	32	0	0	11.8	0	12.7	0	17.6	3.5	2.8	0	14.7	16.2	12.2	22.2	20.8	43.8	8.51	52.4	0	0	0.8	8.33	0	0	0	5.56	0	7.4	NJ11 (168.67Ma)-Paleocene (55.96Ma)
Diazomatolithus lehmanii Noël, 1965	0	5.26	0	0	0	0	0	0	0	0	0	0	0	0	4.26	0	7.69	2.5	0	0	3.23	0	0	1.4	0	0	0	0	0	5.88	0	1.2	0	0	0	9.8	0	1.8	0	0	0	0	0	2.13	3.5	0	0	0	9.09	0	2.5	0	3.3	0	Tithonian (152.06Ma)- Early Aptian (122.98Ma)
Helenea chiastia Worsley, 1971	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.69	0.7	0	0	7.14	0	2.7	0	0	0	0	0	0	3.85	0	0	0	0	0	0	0	0	Late Tithonian (147.72Ma)-UC5c (93.90Ma)
Lotharingius sigillatus (Stradner, 1961) Prins in Grün et al., 1974	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.1	0	0	0	0	0	0	0	0	0	0	0	0	5.56	1.8	0	0	0	8.1	0	0	0	Late Pliensbachian (187.56Ma)-NJ15a (158.53Ma)
Nannoconus sp.	0.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	4.76	0	0	5.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Early Tithonian (152.06Ma)-Campanian (72.05Ma)
Retecapsa escaigii (Noël, 1965) Young & Bown 2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.3	0	0	0	0	0	0	Aalenian (174.15Ma)-Late Jurassic (145.01Ma)
Retecapsa octofenestrata (Bralower in Bralower et al., 1989) Bown in Bown & Cooper, 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Early Callovian (166.07Ma)-Maastrichtian (66.04Ma)
Schizosphaerella sp.	0	0	0	0	0	0	9.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NJ1 (201.10Ma)-Kimmeridgian (152.06Ma)
Watznaueria barnesiae (Black in Black & Barnes, 1959) Perch-Nielsen, 1968	31.3	7.89	11.1	0	0	19	0	11.1	0	0	0	13.3	12.3	49.4	29.8	53.3	53.8	51.7	21.8	61.1	19.4	47.6	56.3	68.8	16.7	87.7	29.3	52.4	12.6	58.8	54.1	5.56	0	4.3	0	12.5	14.3	19	0	19.5	7.8	12.5	0	21.3	4.76	19.2	12.7	58.4	58.3	49	10.5	13.3	32.4	30.6	33.1	23.1	NJ9 (170.10Ma)-Late Maastrichtian (66.04Ma)
Watznaueria biporta Bukry, 1969	0	0	0	0	0	0	0	0	0	0	0	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Albian (112.95Ma)- Late Maastrichtian (66.04Ma); Čepek 1978. Kimmeridge to Oxfordian
Watznaueria britannica (Stradner, 1963) Reinhardt, 1964	0	2.63	7.41	3.85	8.33	0	0	0	0	0	0	0	0	0	0	0	1.8	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	44.4	38.5	52.9	54.5	50	28.6	14.3	43.2	26.8	0	25	13.4	36.2	10.8	34.6	44.4	24.7	33.3	36.4	36.8	26.7	40	45.8	62.3	46.2	NJ9 (170.10Ma)-UC1a (100.03Ma)
Watznaueria communis Reinhardt, 1964	33.3	31.6	66.7	69.2	33.3	23.1	66.7	27.8	0	66.7	92.9	73.3	26.7	18.3	36.2	11.1	0	8.33	42.4	0	29	0	0	0	0	0	9.52	0	0	0	16.7	15.4	16.4	14.7	6.25	3.4	9.52	0	22	14.4	21.5	12.5	10.6	0	7.69	2.1	0	0	0	31.6	26.7	22.4	4.17	0	8	Jurassic (201.30Ma)-Jurassic (145.01Ma)
Watznaueria fossacincta (Black, 1971) Bown in Bown & Cooper, 1989	22.9	13.2	0	7.69	16.7	0	0	0	0	0	0	0	0	17.5	10.6	13.3	0	15	22.3	16.7	22.6	28.6	0	2.8	0	0	13.5	19	0	23.5	8.9	11.1	0	0	9.09	12.5	10.9	20.2	18.9	4.88	0	11.7	6.4	6.38	0	26.9	35.2	11.7	0	5.6	21.1	13.3	5.2	1.3	0	15.4	NJ9 (170.10Ma)-Late Maastrichtian (66.04Ma)
Watznaueria manivitiae Bukry, 1973	5.21	0	0	0	0	0	20	5.56	69.1	8.33	7.14	4.3	33.3	0	12.8	4.44	13.8	0	0	0	3.23	0	37.5	0	0	0	0	0	85.7	0	0	8.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Early Callovian (166.07Ma)-Late Maastrichtian (66.04Ma)
Watznaueria spp. (small-sized)	0	21.1	0	0	0	47.6	0	0	0	0	0	0	13.3	0	2.13	17.8	0	5	0	5.56	0	4.76	6.25	9.8	0	12.3	0	14.3	0	0	28.6	0	38.5	0	18.2	0	35.7	12.3	13.5	14.6	55.6	8.33	23.9	10.6	28.6	8.1	0	0	0	0	9.4	0	9.3	4.6	0	
Stratigraphical range of sample	Tithonian (NJ 18) - end of Jurassic	Tithonian (NJ 18) - end of Jurassic	Callovian-end of Jurassic	NJ11-end of Jurassic	NJ11-end of Jurassic	NJ11-end of Jurassic	Early Callovian-Kimmeridgian	Callovian-end of Jurassic	Callovian-Cretaceous	Callovian-end of Jurassic	Callovian-end of Jurassic	Callovian-end of Jurassic	Callovian-end of Jurassic	NJ11-end of Jurassic	Tithonian (NJ 18) - end of Jurassic	Callovian-end of Jurassic	Tithonian (NJ 18) - Cretaceous	Tithonian (NJ 18) - end of Jurassic	NJ11-end of Jurassic	NJ11-Cretaceous	Tithonian (NJ 18) - end of Jurassic	NJ9-NJ17a	NJ9-Cretaceous	Tithonian-Cretaceous	Callovian-Cretaceous	NJ9-Cretaceous	Tithonian-Cretaceous	Tithonian (NJ 18) - end of Jurassic	Callovian-Cretaceous	Tithonian-Cretaceous	Early Tithonian-NJ17a	Tithonian (NJ 18) - end of Jurassic	Late Tithonian-Jurassic	Late Tithonian-Jurassic+ reworked	NJ11-end of Jurassic	Tithonian (NJ 18) - end of Jurassic	Late Tithonian-Jurassic	Late Tithonian-Jurassic	Late Tithonian-Cretaceous	NJ11-end of Jurassic	NJ11-end of Jurassic	NJ11-end of Jurassic	Early Tithonian-NJ17a	Tithonian-Cretaceous	Late Tithonian-Jurassic	NJ9-NJ17a	NJ11-NJ17a	NJ11-Cretaceous	Tithonian-Cretaceous	NJ9-Jurassic	Tithonian (NJ 18) - end of Jurassic+reworked	NJ9-Jurassic	Tithonian (NJ 18) - end of Jurassic	NJ9-Cretaceous	NJ11-end of Jurassic	