

# **Establishment of a Type Specimen Collection at the Alaska State Geologic Material Center**

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GMC467

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State of Alaska  
Department of Natural Resources  
Division of Geological & Geophysical Surveys  
**GEOLOGIC MATERIALS CENTER**



**ESTABLISHMENT OF A TYPE SPECIMEN COLLECTION AT THE ALASKA STATE GEOLOGIC MATERIALS CENTER**

Publication of new genera and species for fossil material is governed by a number of important rules, in order to ensure taxonomic rigor and validity. Principal among these are the designation of a single “holotype” specimen to represent the new taxon, and placement of that specimen in a properly curated facility to be held in permanent custody for the purpose of possible future re-examination. As of November 2019, the Geologic Materials Center has established the first such collection of holotype specimens for fossil materials.

Ten such holotypes of palynological specimens described in papers by Ravn (2017) and Ravn and Goodman (2017) have now been placed in the collection, with anticipation that many more fossils, of various kinds, will likewise be curated similarly in the future.

The ten new holotypes, all remains of microscopic marine algae from the North Slope region of Alaska, are illustrated below:

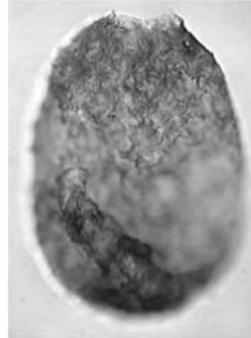
<b>DGGS Palynology Holotypes</b>	<b>Well and depth</b>	<b>England Finder Coords</b>
Fromea nohrhanseni Ravn 2017	Natchiq 1 5790-5880	O8
Fromea quasitabulata Ravn 2017	Walakpa 1 2112.6	G22/4
Fromea gordonwoodii Ravn 2017	Nigliq 1 7950-7980	Z27/4
Fromea xantha Ravn 2017	Kalubik 3 6750-6780	U37/1
	Kup River State 1 7260-7290	L27/2
Paranelsoniella woodii Ravn & Goodman 2017	Long Island 1 7740-7750	Z45/2
Paranelsoniella minuta Ravn & Goodman 2017	Narvaq 1-5040-5070	W35/4
Cyclopsiella mickeyi Ravn 2017	Kalubik 3 4440-4530	Q34/3
Xanthocysta ovata Ravn & Goodman 2017	Wolfbutton 32-7-8 6100	T24/3
Wallodinium contortum Ravn 2017	North Star 3 9536	J40/1
Fromea polaris Ravn 2017		



*Cyclopsisella mickeyi* Ravn 2017  
Santonian (Upper Cretaceous)



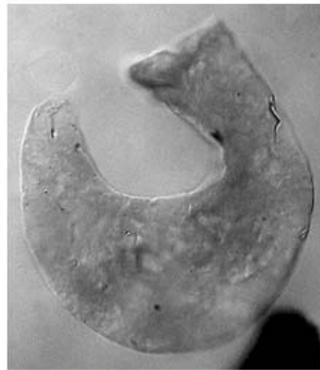
*Fremea polaris* Ravn 2017  
Hauterivian (Lower Cretaceous)



*Fremea gordonwoodii* Ravn 2017  
Toarcian (Lower Jurassic)



*Fremea xantha* Ravn 2017  
Barremian (Lower Cretaceous)

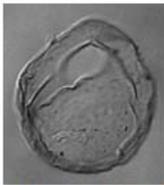


*Walloadinium contortum* Ravn 2017  
Albian (Lower Cretaceous)

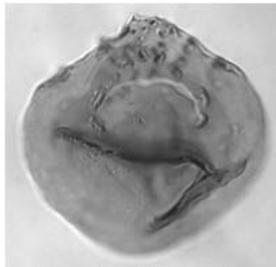
50 µm



*Fremea nohrhanseni* Ravn 2017  
Albian (Lower Cretaceous)



*Cyclopsisella mickeyi* Ravn 2017  
Santonian (Upper Cretaceous)



*Paranelsoniella woodii*  
Ravn & Goodman 2017  
Turonian (Upper Cretaceous)



*Paranelsoniella minuta*  
Ravn & Goodman 2017  
Turonian (Upper Cretaceous)



*Xanthocysta ovata*  
Ravn & Goodman 2017  
Cenomanian (Upper Cretaceous)

## REFERENCES

Ravn RL 2017. The species of *Fromea* revisited, with comments on selected morphologically similar genera. *Palynology* 42: 247-261.

Ravn RL, Goodman DK. 2017. Two new marine cyst genera from Upper Cretaceous megasequence strata in the North Slope of Alaska. *Palynology* 42:271-277.