The Saproxylic Coleoptera of Naddle Forest, Westmorland

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Introduction

Very little information is available on the dead wood Coleoptera of ancient woodland sites in the Lake District, or indeed in North West England. The combination of undoubted continuity of wooded habitats of Naddle Forest, geographical isolation, and climatic conditions make it an ideal site for studying the Coleopterous fauna.

Description

Naddle Forest is a birch/oak/ash /hazel woodland which lies above Haweswater Reservoir in Westmorland (Vc69) in modern Cumbria. It is regarded as being one of the most important examples of ancient woodland in the Lake District (Pearsall, 1950, Halliday, 1997). The combination of steepness and rocky slopes facing NW-E slopes. T .
At between 200-440m, and in a wet climate with annual precipitation circa 2000mm (Averis, 1992). Two areas

The woodland is effectively an isolated block see fig 1., separated from any other woodland, by open sheep-grazed fells. The only connectivity is via hedgerow habitats through the Lowther Valley, which have few veteran native trees, and are unlikely to be sufficient corridors for dispersal, for all but the commonest species. The northern end is dominated by wood pasture with heavy grazing pressure from sheep and cattle. The steeper lake side areas are less heavily grazed with some compartments

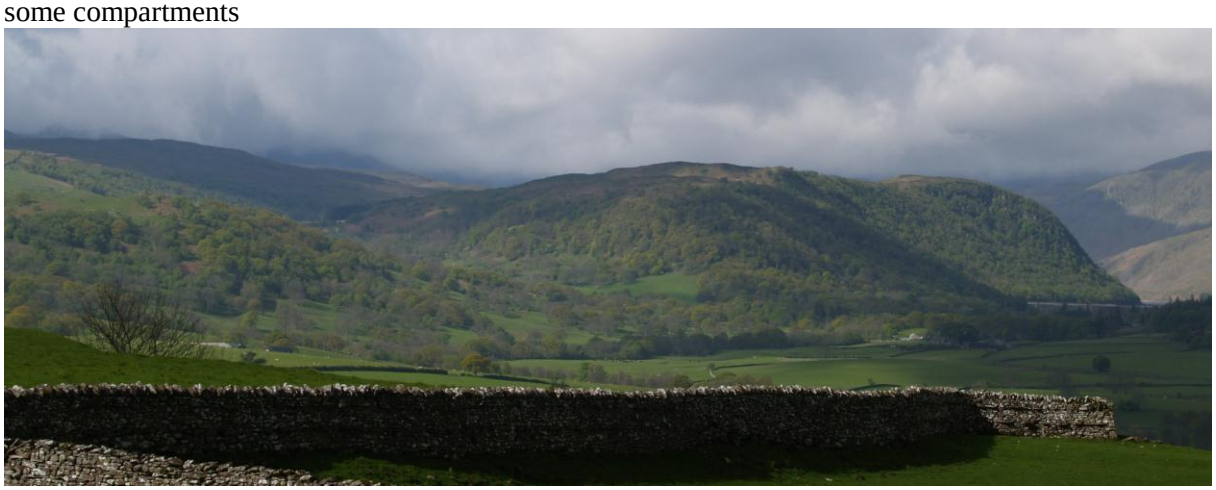

Fig. 1. Naddle Forest from the North. Haweswater dam and lake lie at the extreme right.

Measuring the sites importance

The method outlined by Fowles *et al* (1999) was used to calculate the Species Quality Index (SQI). Sampling was carried out over a ten-year period from 1994-2004. It proved difficult to find the 40 species needed as a minimum threshold to make the data sufficiently vigorous for comparative purposes. But despite being somewhat species poor the fauna present did include some scarce species, and the SQI of 275.3 compares well with many southern ancient woodlands.

In an attempt to overcome the problems of

CUMBRIA 1800-2004	**170**	**449.2**	**780**		
LAKE DISTRICT	**117**	**410**	**350.4**	**26**	**20**
NADDLE FOREST	41	113	297.6	5	

Using published sources such as (Day, 1909, 1918) and Atty (1996) as well as unpublished information from (John Read), I have produced a SQI for the Lake District as a whole, which equates to the English Nature Natural Area No.10 (Cumbria Fells and Dales) .

Naddle Forest therefore supports close to 40% of the known Lakeland saproxylic list.

Mature birch trees and associated fungi support some of the key species including *Hylecoetinus dermestoides, Scolytus ratzeburgi*

References

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Species	**Host species**	**Status**	**SQI score**	**IEC score**
Staphylinidae				
Dropophylla ioptera (Stephens)			1	
Phloeonomus punctipennis Thomson			2	
Leptusa fumida Kraatz			1	
Leptusa ruficollis (Erichson)			1	
Atrecus affinis (Paykull)			1	
Lucanidae				
Sinodendron cylindricum (L.)	Ash		2	
Elateridae				
Melanotus villosus sensu lato.			1	
Harminius undulatus			8	
Denticollis linearis (L.)			1	
Cantharidae				
Malthodes flavoguttatus			2	
Malthodes guttifer Kiesenwetter		Nb	8	
Malthodes marginatus (Latreille)			1	
Malthodes mysticus Kiesenwetter			2	
Anobiidae				
Hemicoelus fulvicorne (Sturm)			1	
Peltidae				
Thymalus limbatus (Fabricius)	oak	Nb	8	
Lymexylidae				
Hylecoetus dermestoides (Linnaeus)	birch	Nb	4	
Rhizophagidae				
Rhizophagus bipustulatus (Fabricius)			1	
Rhizophagus dispar (Paykull)			1	

Crytophagidae				
Cryptophagus dentatus (Herbst)	oak		1	
Cerylonidae				
Cerylon histeroides Stephens	oak		4	
Ciidae				
Octotemnus glabriculus (Gyllenhal)			1	
Cis bidentatus (Olivier)	Alder, oak		2	
Cis boleti (Scopoli)			1	
Mycetophagidae				
Mycetophagus quadripustulatus (L.)	elm		2	
Salpingidae				
Rabocerus gabrieli Gerhardt		Nb	8	
Rhinosimus ruficollis (L.)			1	
Rhinosimus planirostris (Fabricius)			1	
Pyrochroidae				
Pyrochroa serraticornis (Scopoli)	oak		1	
Melandryidae				
Orchesia minor Walker	birch		4	
Orchesia undulata Kraatz	Oak		4	
Abdera flexuosa (Paykull)	alder		8	
Scraptidae				
Anaspis frontalis (Linnaeus)			1	
Anaspsis rufilabris (Gyllenhal)			1	
Cerambycidae				
Rhagium bifasciatum Fabricius			1	
Rhagium mordax (Degeer)	Oak		1	
Grammoptera ruficornis (Fabricius)			1	
Curculionidae				
Magdalis carbonaria (L.)	birch		4	
Scolytidae				
Leperisinus varius (Fabricius)	Ash		1	
Hylesinus crenatus (Fabricius)	Ash		2	
Scolytus intricatus (Ratzeburg)	Oak		2	
Scolytus multistriatus (Marsham)			1	
Scolytus scolytus (Fabricius)	Elm		2	
Scolytus ratzeburgi Janson	Birch		8	
Xyloterus domesticus (L.)	Rowan		2	1
		41	**122**	
			297	