

Short Database Report

Epiphytic Macrolichen Community Composition Database – epiphytic lichen synusiae in forested areas of the US

Sarah Jovan

Abstract: The Forest Inventory and Analysis (FIA) Program's Lichen Communities Indicator is used for tracking epiphytic macrolichen diversity and is applied for monitoring air quality and climate change effects on forest health in the United States. Started in 1994, the Epiphytic Macrolichen Community Composition Database (GIVD ID NA-US-012) now has over 8,000 surveys of lichen community composition, some of which are re-visits that may be used for tracking change over time. Plots are located on the FIA Program's permanent nation-wide Phase 3 grid and are re-visited every 5-10 years (periodicity varies by region). Recent data uses include development of critical loads for nitrogen and identification of lichen species expected to be sensitive to climate change.

Keywords: air quality; climate change; critical load; forest health; macrolichen; nitrogen; pollution.

GIVD Database ID: NA-US-012		Last update: 2012-05-09
Epiphytic Macrolichen Community Composition Database		
Scope: Data contain abundance estimates for all epiphytic macrolichens detected within a 0.4 hectare permanent circular plot. Plots are part of the Forest Inventory and Analysis Program's national Phase 3 grid. Lichen surveys last a minimum of 30 minutes and a maximum of 2 hours. Abundance codes are: 1 (< 3 thalli), 2(4-10 thalli), 3(>10 thalli, but present on <50% of all boles and branches) and 4 (>10 thalli, species present on > 50% of all boles and branches).		
Status: ongoing capture	Period: 1994-2011	
Database manager(s): Sarah Jovan (sjovan@fs.fed.us)		
Owner: Forest Inventory and Analysis Program, USDA Forest Service		
Web address: http://fia.fs.fed.us/lichen/data/		
Availability: free online	Online upload: no	Online search: yes
Database format(s): MS Access, Oracle		Export format(s): MS Access, Excel, PDF, CSV file, plain text file
Publication: Woodall et al 2010 (EMAS_phase3) Forest Inventory and Analysis Program methods (p3_4-0_sec10_10_2007)		
Plot type(s): normal plots		Plot-size range: 4,000-4,000 m ²
Non-overlapping plots: 4,941	Estimate of existing plots: 4,941	Completeness: 100%
Total plot observations: 4,941	Number of sources: 1	Valid taxa: [NA]
Countries: US: 100.0%		
Forest: [NA] — Non-forest: [NA]		
Guilds: non-terricolous taxa (epiphytic, saxicolous, lignicolous): 100%		
Environmental data: altitude: 100%; slope aspect: 100%; slope inclination: 100%; other soil attributes: 100%		
Performance measure(s): other: 100%		
Geographic localisation: GPS coordinates (precision 25 m or less): 100%		
Sampling periods: 1990-1999: 37.0%; 2000-2009: 63.0%		
<i>Information as of 2012-07-12; further details and future updates available from http://www.givd.info/ID/NA-US-012</i>		

Sarah Jovan (sjovan@fs.fed.us)

Portland Forestry Sciences Lab, USDA Forest Service, 620 SW Main St, 97205 Portland, UNITED STATES