Supplemental material for

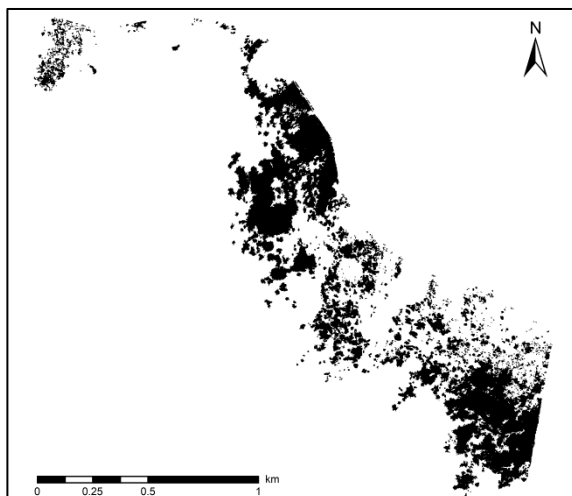**FIGURE S1** Location of study sites (Babia hora: 49.573050, 19.529548; Pilsko: 49.528001, 19.316791). (Map by authors)
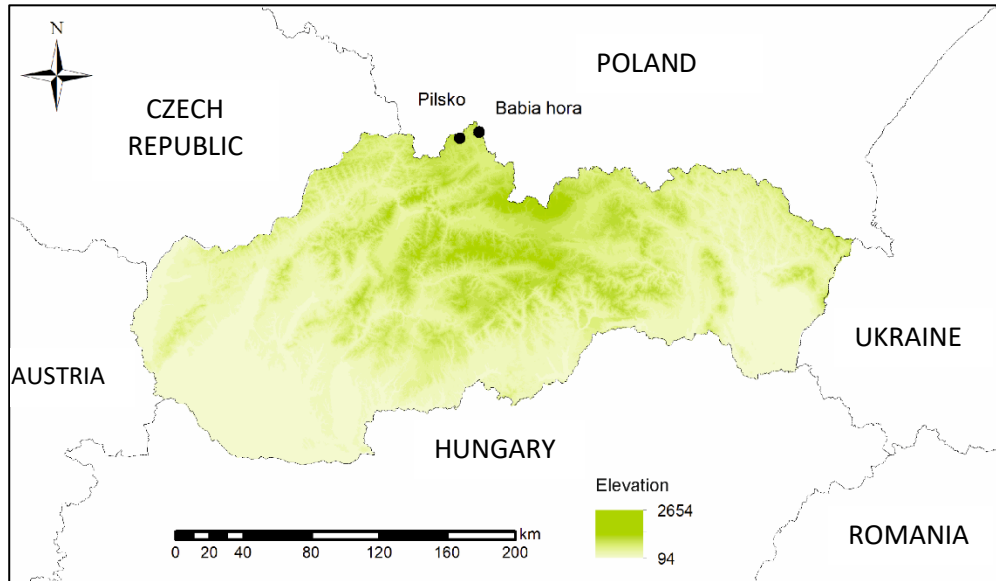

FIGURE S2 Dwarf pine cover evaluated from aerial imagery in individual years and confusion matrixes based on training test area masks. (Maps by authors)

Babia hora, 1949

User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Dwarf pine	1783318	416134	2199452
Others	323449	18102847	18426296
Sum	2106767	18518981	
Accuracy			
Producer	0.8464714	0.9775293	
User	0.8108011	0.9824463	
Hellden	0.8282523	0.98	
Short	0.7068522	0.9607491	
KIA Per Class	0.8281455	0.7892773	
Totals			
Overall Accuracy	0.9641427		
KIA	0.8082444		

Babia hora, 1973
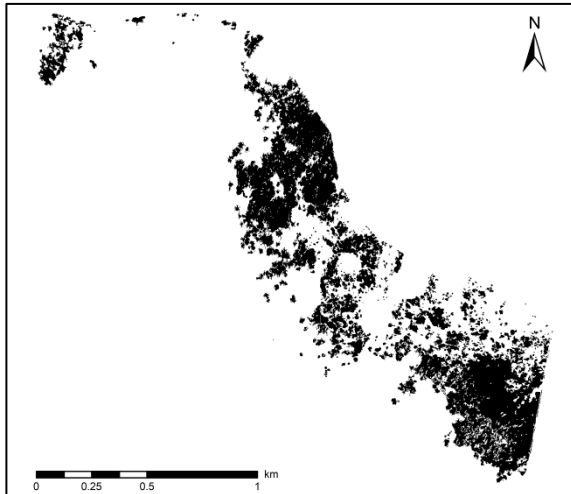
User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Others	367928	3289013	3656941
Dwarf pine	1820579	310794	2132373
Sum	2188507	3599807	
Accuracy			
Producer	0.8318817	0.9136637	
User	0.8541813	0.8993891	
Hellden	0.8428841	0.9064702	
Short	0.7284353	0.829	
KIA Per Class	0.7338975	0.7655307	
Totals			
Overall Accuracy	0.8827427		
KIA	0.7493804		

Babia hora, 1992
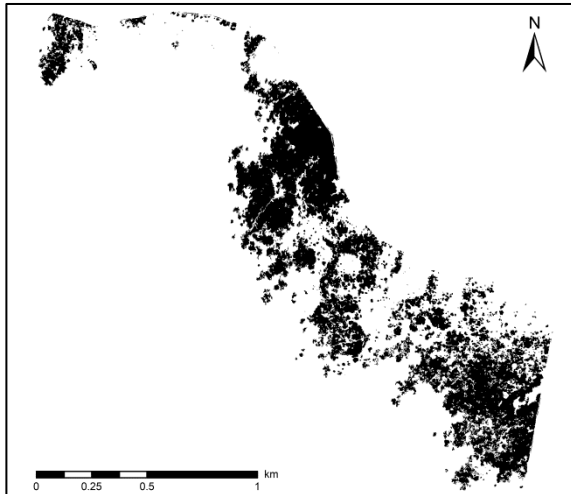
User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Others	258947	3217397	3476344
Dwarf pine	2173847	338382	2512229
Sum	2432794	3555779	
Accuracy			
Producer	0.8935598	0.9048360	
User	0.8653061	0.9255117	
Hellden	0.8792060	0.915	
Short	0.7844493	0.8434150	
KIA Per Class	0.8166393	0.7731511	
Totals			
Overall Accuracy	0.9002552		
KIA	0.7943004		

Babia hora, 2013
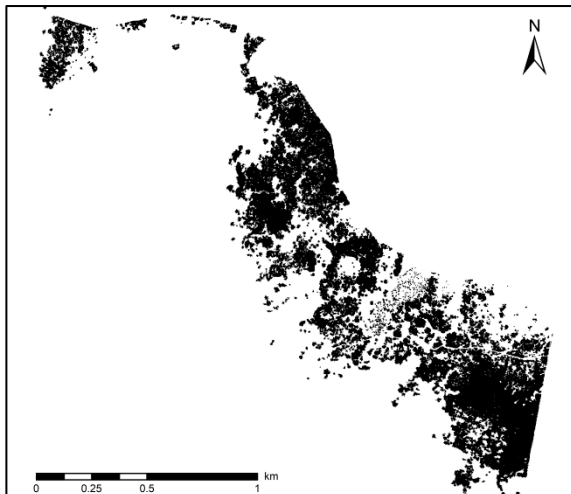
User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Dwarf pine	2412508	521869	2934377
Others	306774	19550143	19856917
Sum	2719282	20072012	
Accuracy			
Producer	0.8871857	0.974	
User	0.8221534	0.9845508	
Hellden	0.8534324	0.9792471	
Short	0.7443368	0.9593380	
KIA Per Class	0.8705144	0.798	
Totals			
Overall Accuracy	0.9636421		
KIA	0.8327138		

Pilsko, 1973
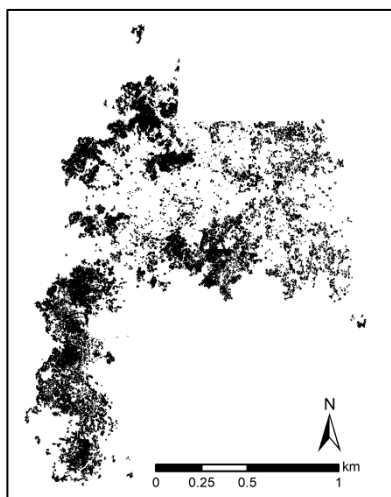
User \ Referenc...	Dwarf pine	Others	Sum
Confusion Matrix			
Dwarf pine	2269129	1145398	3414527
Others	528604	14089283	14617887
Sum	2797733	15234681	
Accuracy			
Producer	0.811	0.9248164	
User	0.6645515	0.9638385	
Hellden	0.7305325	0.944	
Short	0.5754638	0.8938037	
KIA Per Class	0.767	0.603	
Totals			
Overall Accuracy	0.9071671		
KIA	0.6751233		

Pilsko, 1992
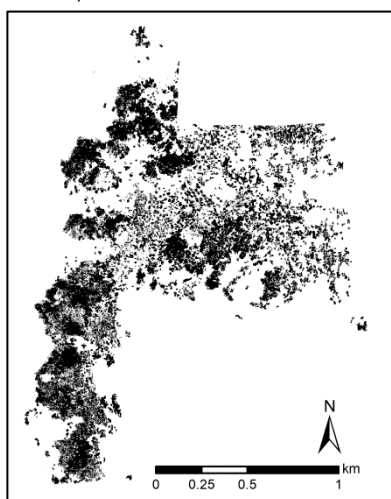
User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Dwarf pine	2535969	1209101	3745070
Others	504619	15475009	15979628
unclassified	0	0	0
Sum	3040588	16684110	
Accuracy			
Producer	0.834	0.9275298	
User	0.6771486	0.9684211	
Hellden	0.7474497	0.9475345	
Short	0.5967423	0.9002998	
KIA Per Class	0.7951435	0.6183107	
Totals			
Overall Accuracy	0.9131181		
KIA	0.6956656		

Pilsko, 2013
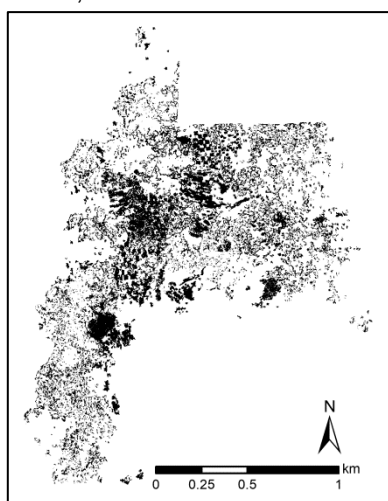
User \ Reference Class	Dwarf pine	Others	Sum
Confusion Matrix			
Dwarf pine	3121883	2069581	5191464
Others	496421	14036813	14533234
Sum	3618304	16106394	
Accuracy			
Producer	0.8628028	0.8715056	
User	0.6013493	0.9658424	
Hellden	0.7087322	0.9162522	
Short	0.5488654	0.8454478	
KIA Per Class	0.8137942	0.5117923	
Totals			
Overall Accuracy	0.87		
KIA	0.6283914		