

Ecography

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Supplementary material

Appendix 1. The spatial and temporal scales in aero-ecological studies.

Table A1. A short non-comprehensive list of recent and typical aeroecological studies and their spatial and temporal scales. In spatial scales, ‘local’ is up to 10 km, ‘regional’ tens to a few hundreds of km, and ‘continental’ several hundreds to thousands of km. Colour shadings indicate the taxon primarily studied, with green shades – insects, blue shades – birds, orange shades – bats, intermediate colours indicate studies that cover more than one taxon.

Study/ publication with reference	Spatial scale			Temporal scale		
	Local	Regional	Continental	Days, weeks	Months	Years
Drake and Reynolds (2012)	X	X		X		
Chapman and co-authors. <i>publications</i> using the long data series from UK’s automated Vertical-looking Radars, e.g. Hu et al. (2016a, b), Reynolds et al. (2010), Chapman et al. (2012)		X				X
Feng and co-authors. Scanning radar case studies, mainly of pests in China, e.g. Feng et al. (2006), Feng et al. (2009)		X			X	
Drake and co-authors, several publications using the Australian automated vertical-looking radars, e.g. Drake and Wang (2013), Hao et al. (2017)		X			X	X
Wainwright et al. (2017)	X				X	
Rennie (2014), Leskinen et al. (2011)		X		X	X	
Boulanger et al. (2017)		X		X		
Chapman et al. (2016), Chapman et al. (2015), Alerstam et al. (2011)	X	X			X	X
Bäckman and Alerstam (2001), Van Doren et al. (2017), Bruderer and Liechti (1995, 1998), Liechti and Schaller (1999), Mateos-	X			X		

Rodríguez and Liechti (2012), Schmidt et al. (2017)						
Malmiga et al. (2014), Dokter et al. (2013a), Dokter et al. (2013c), Gerringer et al. (2016), Schmaljohann et al. (2007)	X				X	
Ronconi and Cassady (2006)	X			X	X	
Plonczkier and Simms (2012)	X			X	X	X
Nilsson et al. (2014b), Sjöberg and Nilsson (2015), Nilsson and Sjöberg (2016), Fijn et al. (2015), Nilsson et al. (2015), Nilsson et al. (2014a), Kemp et al. (2013), Wainwright et al. (2016)	X				X	X
Nilsson et al. (2018)	X	X		X		
Dokter et al. (2011)	X	X			X	
Karlsson et al. (2011), Karlsson et al. (2012), Alerstam et al. (2011), Karlsson et al. (2010)	X	X			X	X
Shamoun-Baranes et al. (2016), Van Gasteren et al. (2008)		X		X		
Van Belle et al. (2007)		X		X	X	X
Alerstam and Gudmundsson (1999), Alerstam (1975), McLaren et al. (2012)		X			X	
Van Belle et al. (2007), Kemp et al. (2013), Horton et al. (2016c), Horton et al. (2016a), Kemp et al. (2010), Shamoun-Baranes and van Gasteren (2011), Dokter et al. (2013b), Horton et al. (2016b)		X			X	X
Nilsson et al. (2019), European-wide patterns of avian migration from weather radar data.			X	X		
Kelly et al. (2016)			X		X	

Frick et al. (2012), Stepanian and Wainwright (2018)			X			X

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