

Table A1. A list of studies assessing the spatial scale of pathogen local adaptation. Evidence for local (mal)adaptation in one of the measured traits is taken in classification: '+' = pathogen locally adapted; '-' = parasite locally maladapted; '(') = adaptation only in some cases; 'NS' = no significant adaptation or maladaptation.

Reference	Species	Spatial unit	Replication (Host / Pathogen)	Experiment	trait measured	Pathogen local adaptation
Altizer 2001	<i>Danaus plexippus</i> (monarch butterfly) ~ <i>Ophryocystis elektroscirrha</i> (neogregarine protozoan parasite)	population	3	inoculations	aggressiveness	NS
Bevan, Crute & Clarke 1993b	<i>Senecio vulgaris</i> (groundsel) ~ <i>Erysiphe fischeri</i> (powdery mildew fungus)	population	2	inoculations	infectivity / aggressiveness	NS [*]
Capelle & Neema 2005	<i>Phaseolus vulgaris</i> (Common bean) ~ <i>Colletotrichum lindemuthianum</i> (fungal pathogen)	individual	12	inoculations	infectivity / aggressiveness	+
Carius, Little & Ebert 2001	<i>Daphnia magna</i> (planktonic crustacean) ~ <i>Pasteuria ramosa</i> (bacterial endoparasite)	individual	9 (for each of two populations)	inoculations	infectivity	+
Carlsson-Granér 1997	<i>Silene dioica</i> (red campion) – <i>Microbotryum violaceum</i> (anther-smut fungus)	population	3	transplanting (host)	infectivity	(+) [*]
Davelos, Alexander & Slade 1996	<i>Spartina pectinata</i> ~ <i>Puccinia seymouriana</i> and <i>Puccinia sparganioides</i> (rust fungi)	population	5	transplanting (host)	infectivity / aggressiveness	NS
Ebert 1994	<i>Daphnia magna</i> (planktonic crustacean) ~ <i>Glugoides intestinalis</i> (microsporidium)	population	9/3	inoculations	aggressiveness	+
Ebert, Zschokke-Rohringer & Carius 1998	<i>Daphnia magna</i> (planktonic crustacean) ~ <i>Pasteuria ramosa</i> (bacterial endoparasite)	population	4	inoculations	infectivity / aggressiveness	NS
Ennos & McConnell 1995	<i>Pinus sylvestris</i> (Scots pine) ~ <i>Crumenulopsis sororia</i> (fungal canker)	population	3	transplanting (pathogen)	relative performance of strains in mixed inocula	NS
Ericson, Burdon & Müller 2002	<i>Filipendula ulmaria</i> (meadowsweet) ~ <i>Triphragmium ulmariae</i> (rust fungus)	population	6/4	inoculation	infectivity / aggressiveness	NS

Reference	Species	Spatial unit	Replication (Host / Pathogen)	Experiment	trait measured	Pathogen local adaptation
Ganz & Washburn 2006	<i>Ochlerotatus sierrensis</i> (tree hole mosquito) ~ <i>Lambornella clarki</i> (protozoan parasite)	population	4/2 and 8/1	inoculations	infectivity / aggressiveness	+
Geffroy <i>et al.</i> 1999	<i>Phaseolus vulgaris</i> (Common bean) ~ <i>Colletotrichum lindemuthianum</i> (fungal pathogen)	region	3	inoculations	infectivity	+
Hatcher, Hogg & Dunn 2005	<i>Gammarus duebeni</i> (crustacean) ~ <i>Nosema granulosis</i> (microsporidian)	population	4	inoculations	infectivity / aggressiveness	+
Imhoof & Schmid-Hempel	<i>Bombus terrestris</i> (bumblebee) ~ <i>Crithidia bombi</i> (trypanosome intestinal parasite)	a) region b) population	a) 3, b) 3	inoculations	infectivity / aggressiveness	a) NS, b) NS
Jarosz & Burdon 1991	<i>Linum marginale</i> (wild flax) ~ <i>Melampsora lini</i> (rust fungus)	population	9	inoculations	infectivity	+*
Kaltz & Shykoff 2002	<i>Silene latifolia</i> (white campion) ~ <i>Microbotryum violaceum</i> (anther-smut fungus)	population	14	inoculations	aggressiveness	-
Kaltz <i>et al.</i> 1999	<i>Silene latifolia</i> (white campion) ~ <i>Microbotryum violaceum</i> (anther-smut fungus)	population	6/4 and 14/14	inoculations	infectivity / aggressiveness	-
Laine 2005	<i>Plantago lanceolata</i> (ribwort plantain) ~ <i>Podosphaera plantaginis</i> (fungal pathogen)	population	20/4	inoculations	infectivity / aggressiveness	+
Laine 2008	<i>Plantago lanceolata</i> (ribwort plantain) ~ <i>Podosphaera plantaginis</i> (fungal pathogen)	population	3	inoculations	infectivity / aggressiveness	+
Meyer, Nelson & Clement 2001	<i>Bromus tectorum</i> (cheatgrass) ~ <i>Ustilago bullata</i> (head smut fungus)	population	4	inoculations	infectivity	+
Niemi <i>et al.</i> 2006	<i>Salix triandra</i> (almond willow) ~ <i>Melampsora amygdalinae</i> (rust fungus)	population	3	inoculations	infectivity	+
Oppliger, Vernet & Baez 1999	<i>Gallotia galloti</i> (Canarian lizard) ~ haemogregarine genus (blood parasite)	population	3	inoculations	aggressiveness	-

Reference	Species	Spatial unit	Replication (Host / Pathogen)	Experiment	trait measured	Pathogen local adaptation
Parker 1985	<i>Amphicarpaea bracteata</i> (hog peanut) ~ <i>Synchytrium decipiens</i> (fungal pathogen)	population	1	transplanting (host)	infectivity / aggressiveness	+
Parker 1989	<i>Podophyllum peltatum</i> (mayapple) ~ <i>Puccinia podophylli</i> (rust fungus)	population	6	transplanting (host)	infectivity / aggressiveness	NS
Roslin, Laine & Gripenberg 2007	<i>Quercus robur</i> (pedunculate oak) ~ <i>Erysiphe alphitoides</i> (oak powdery mildew)	individual	4	inoculations	infectivity	+
Roy 1998	<i>Arabis holboellii</i> (rockcress) ~ <i>Puccinia monoica</i> and <i>P. thlaspeos</i> (rust fungi)	population	3	transplanting (host)	infectivity	-
Sicard <i>et al.</i> 2007	<i>Phaseolus vulgaris</i> (Common bean) and <i>P. coccineus</i> ~ <i>Colletotrichum lindemuthianum</i> (fungal pathogen)	population	3/3 and 3/2	inoculations	infectivity / aggressiveness	+ (<i>P. vulgaris</i>), NS (<i>P. coccineus</i>)
Springer 2007	<i>Hesperolinon californicum</i> (California dwarf flax) ~ <i>Melampsora lini</i> (rust fungus)	population	10	inoculations	infectivity	+
Thrall, Burdon & Bever 2002	<i>Linum marginale</i> (wild flax) ~ <i>Melampsora lini</i> (rust fungus)	a) region b) population	a) 3 and b) 6	inoculations	infectivity	a) +, b) +
Wennström & Ericson 1994	<i>Lactuca sibirica</i> (lettuce) ~ <i>Puccinia minussensis</i> (rust fungus)	population	5/1	inoculations	infectivity / aggressiveness	+

* As reported by Kaltz & Shykoff 1998