

575 *Supplementary Information*

576 Supplementary Table 1: Studies included in the meta-analysis that met our inclusion criteria. Studies
 577 must have included manipulations using an immune stimulant that did not include live infections; treated
 578 animals must have been compared to a control group that was either unmanipulated or procedural (e.g.,
 579 sham, saline); reported study outcomes that measured a fitness, performance, or other functional response
 580 (e.g., activity, food intake, growth rate, mass change, egg production, egg size, gonad size, breeding
 581 effort, individual survival, recruitment rate, dispersal behavior).

Author	Study year	Study species	Species class
Adelman <i>et al.</i> (48)	2010	<i>Melospiza melodia fallax</i> , <i>Melospiza melodia morphna</i>	Aves
Ahmed <i>et al.</i> (49)	2002	<i>Anopheles gambiae</i>	Insecta
Armitage <i>et al.</i> (50)	2003	<i>Tenebrio molitor</i>	Insecta
Ashley <i>et al.</i> (51)	2009	<i>Zonotrichia leucophrys gambelii</i>	Aves
Barribeau <i>et al.</i> (52)	2010	<i>Acyrtosiphon pisum</i>	Insecta
Bascunan-Garcia <i>et al.</i> (53)	2010	<i>Acheta domesticus</i>	Insecta
Bertrand <i>et al.</i> (54)	2006	<i>Taeniopygia guttata</i>	Aves
Biard <i>et al.</i> (55)	2009	<i>Turdus merula</i>	Aves
Bonneaud <i>et al.</i> (19)	2004	<i>Passer domesticus</i>	Aves
Burness <i>et al.</i> (56)	2010	<i>Taeniopygia guttata</i>	Aves
Cai <i>et al.</i> (57)	2009	<i>Lasiopodomys brandtii</i>	Mammalia
Costantini & Dell’Omo (58)	2006	<i>Falco tinnunculus</i>	Aves
Derting & Virk (59)	2005	<i>Peromyscus leucopus</i>	Mammalia
Dreiss <i>et al.</i> (60)	2008	<i>Hirundo rustica</i>	Aves
Ekblom <i>et al.</i> (61)	2005	<i>Gallinago media</i>	Aves
Eraud <i>et al.</i> (62)	2005	<i>Streptopelia decaocto</i>	Aves
Eraud <i>et al.</i> (63)	2009	<i>Streptopelia decaocto</i>	Aves
Fair & Myers (64)	2002	<i>Sialia mexicana</i>	Aves
Février <i>et al.</i> (65)	2009	<i>Cornu aspersum aspersa</i> ; <i>Cornu aspersum maxima</i>	Gastropoda
Freitak (66)	2003	<i>Pieris brassicae</i>	Insecta
Gautier <i>et al.</i> (67)	2008	<i>Taeniopygia guttata</i>	Aves
Grindstaff (68)	2008	<i>Coturnix japonica</i>	Aves
Hôrak <i>et al.</i> (69)	2006	<i>Carduelis chloris</i>	Aves
Jacot <i>et al.</i> (70)	2004	<i>Gryllus campestris</i>	Insecta
Jacot <i>et al.</i> (71)	2005	<i>Gryllus campestris</i>	Insecta
Kati & Hardie (72)	2010	<i>Aphis fabae</i>	Insecta
Laugero & Moberg (20)	2000	<i>Mus musculus</i>	Mammalia
Laugero & Moberg (73)	2000	<i>Mus musculus</i>	Mammalia
Li <i>et al.</i> (74)	2009	<i>Crassostrea gigas</i>	Bivalvia
López <i>et al.</i> (75)	2009	<i>Podarcis hispanica</i>	Reptilia
Mallon <i>et al.</i> (76)	2003	<i>Apis mellifera</i>	Insecta
Martin (77)	2005	<i>Passer domesticus</i>	Aves
Meylan <i>et al.</i> (78)	2010	<i>Zootoca vivipara</i>	Reptilia

Moret & Schmid-Hempel (79)	2004	<i>Bombus terrestris</i>	Insecta
Munoz <i>et al.</i> (80)	2010	<i>Zonotrichia leucophrys oriantha</i>	Aves
Owen-Ashley <i>et al.</i> (81)	2008	<i>Zonotrichia leucophrys pugetensis</i> ; <i>Zonotrichia leucophrys gambelii</i>	Aves
Råberg <i>et al.</i> (82)	2000	<i>Parus caeruleus</i>	Aves
Reaney & Knell (83)	2010	<i>Euoniticellus intermedius</i>	Insecta
Sijben <i>et al.</i> (84)	1998	<i>Sus scrofa</i>	Mammalia
Svensson <i>et al.</i> (85)	1998	<i>Parus caeruleus</i>	Aves
Williams <i>et al.</i> (86)	1999	<i>Sturnus vulgaris</i>	Aves

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584 Supplementary Table 2: Sources of mass and life history information (average life expectancy, average
 585 time to maturity) if the information was not available in the source paper.

Species	Information source
<i>Acyrtosiphon pisum</i>	Sakurai, et al. 2005 (87) Eastop 1971 (88)
<i>Anopheles gambiae</i>	http://www.cdc.gov
<i>Aphis fabae</i>	Banks, et al. 1964 (89)
<i>Apis mellifera</i>	Ellis & Delaplane 2009 (90) http://animaldiversity.org/
<i>Bombus terrestris</i>	http://www.bumblebee.org
<i>Carduelis chloris</i>	http://eol.org
<i>Coturnix japonica</i>	http://animaldiversity.org/
<i>Crassostrea gigas</i>	http://www.fao.org Pauley, et al. 1988 (91)
<i>Falco tinnunculus</i>	http://animaldiversity.org/
<i>Gallinago media</i>	del Hoyo, et al. 1991 (92)
<i>Gryllus campestris</i>	Holzer, et al. 2003 (93)
<i>Hirundo rustica</i>	http://animaldiversity.org/
<i>Lasiopodomys brandtii</i>	http://genomics.senescence.info/species
<i>Melospiza melodia fallax</i>	http://animaldiversity.org/
<i>Melospiza melodia morphna</i>	Owen-Ashley 2006 (94) http://animaldiversity.org/
<i>Parus caeruleus</i>	Dhondt 1989 (95) http://eol.org
<i>Passer domesticus</i>	http://genomics.senescence.info/species http://animaldiversity.org
<i>Peromyscus leucopus</i>	http://animaldiversity.org/
<i>Podarcis hispanica</i>	Gabirot, et al. 2013 (96)
<i>Sialia mexicana</i>	http://animaldiversity.org/
<i>Streptopelia decaocto</i>	http://eol.org
<i>Sturnus vulgaris</i>	http://animaldiversity.org/ Linz, et al. 2007 (97)
<i>Sus scrofa</i>	http://animaldiversity.org/
<i>Taeniopygia guttata</i>	http://animaldiversity.org/
<i>Turdus merula</i>	http://eol.org

<i>Zonotrichia leucophrys gambelii</i>	Morton & Pereyra 1987 (98)
<i>Zonotrichia leucophrys pugetensis</i>	http://eol.org
<i>Zootoca vivipara</i>	http://animaldiversity.org/

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