Oikos

O15828

Vázquez, D. P., Melián, C. J., Williams, N. M., Blüthgen, N., Krasnov, R. R. and Poulin, R. 2007. Species abundance and asymmetric interaction strength in ecological networks. – Oikos 116: 1120–1127.

Appendix 1. Datasets used for the analysis.

Dataset no. §	Interaction type	Location	A_H†	A_C‡	No. host sp.	No. cons. sp.	Ref. no.
1	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	10	29	34, 35
2	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	9	33	34, 35
3	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	9	27	34, 35
4	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	10	29	34, 35
5	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	8	35	34, 35
6	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	8	26	34, 35
7	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	7	24	34, 35
8	Plant–pollinator	Nahuel Huapi, Argentina	Quadrat density	Visitation frequency	8	27	34, 35
9	Plant–pollinator	Sac River, California, USA	Quadrat density	Visitation frequency	34	58	36
10	Plant–pollinator	Sac River, California, USA	Quadrat density	Visitation frequency	10	31	36
11	Plant–ant	Cape Tribulation, Australia	Total individuals visited	Colony abundance on baits	51	41	7, 6
12	Fish–parasite	Aishihik Lake, Canada	Fishing sample size*	Total individuals on host species*	7	29	4
13	Fish–parasite	Cold Lake, Canada	Abundance*	Total individuals on host species*	10	40	16
14	Fish–parasite	Lake Huron and Manitoulin Island, Canada	Fishing sample size*	Total individuals on host species*	33	97	5
15	Fish–parasite	McGregor River, Canada	Fishing sample size*	Total individuals on host species*	14	51	3
16	Fish–parasite	Parsnip River, Canada	Fishing sample size*	Total individuals on host species*	17	53	3
17	Fish–parasite	Smallwood Reservoir, Canada	Fishing sample size*	Total individuals on host species*	6	25	9
18	Fish–parasite	Lake of the Woods, Canada	Fishing sample size*	Total individuals on host species*	31	144	11
19	Mammal–flea	Adzharia, southern Caucasus	Abundance from traps	Total individuals on host species*	12	20	1
20	Mammal–flea	Akmolinsk region, northern Kazakhstan	Abundance from traps	Total individuals on host species*	8	19	19
21	Mammal–flea	Altai mountains	Abundance from traps	Total individuals on host species*	19	9	26
22	Mammal–flea	California, USA	Abundance from traps	Total individuals on host species*	8	17	10
23	Mammal–flea	Central Yakutia	Abundance from traps	Total individuals on host species*	6	17	12
24	Mammal–flea	Dzhungarskyi Alatau, Kazakhstan	Abundance from traps	Total individuals on host species*	15	22	8
25	Mammal–flea	East Balkhash desert, Kazakhstan	Abundance from traps	Total individuals on host species*	11	35	20
26	Mammal–flea	Idaho, USA	Abundance from traps	Total individuals on host species*	12	28	2
27	Mammal–flea	Kabarda, northern Caucasus	Abundance from traps	Total individuals on host species*	9	21	30
28	Mammal–flea	Khaborovsk region, southeast Russia	Abundance from traps	Total individuals on host species*	8	21	13
29	Mammal–flea	Kustanai region, northwestern Kazakhstan	Abundance from traps	Total individuals on host species*	18	14	25
30	Mammal–flea	Mongolia	Abundance from traps	Total individuals on host species*	5	20	31
31	Mammal–flea	Moyynkum desert, Kazakhstan	Abundance from traps	Total individuals on host species*	12	31	24
32	Mammal–flea	Negev desert, Israel	Abundance from traps	Total individuals on host species*	13	11	15, 14
33	Mammal–flea	North Asian Far East	Abundance from traps	Total individuals on host species*	14	16	37
34	Mammal–flea	North Kyrgyzstan	Abundance from traps	Total individuals on host species*	14	31	27
35	Mammal–flea	North New Mexico	Abundance from traps	Total individuals on host species*	20	31	21
36	Mammal–flea	Novosibirsk region, southern Siberia	Abundance from traps	Total individuals on host species*	20	28	32
37	Mammal–flea	Pavlodar region, eastern Kazakhstan	Abundance from traps	Total individuals on host species*	7	11	28
38	Mammal–flea	Selenga region, central Siberia	Abundance from traps	Total individuals on host species*	7	11	23
39	Mammal–flea	Slovakia	Abundance from traps	Total individuals on host species*	13	22	29
40	Mammal–flea	Tarbagatai region, estern Kazakhstan	Abundance from traps	Total individuals on host species*	12	30	18
41	Mammal–flea	Turkmenistan	Abundance from traps	Total individuals on host species*	14	36	38, 39
42	Mammal–flea	Tuva	Abundance from traps	Total individuals on host species*	13	28	17
43	Mammal–flea	Volga-Kama region	Abundance from traps	Total individuals on host species*	20	31	22

§Dataset 1–8 and 12–18 are available through the Interaction Web Database (http://www.nceas.ucsb.edu/interactionweb)
†"Host" abundance, including the abundance of plants in plant–animal mutualisms and hosts in host–parasite interactions
‡Consumer abundance, including the abundance of pollinators, ants, metazoan parasites of fish and fleas
* See 33 for a full explanation of the measurement of abundance and frequency of interaction in these datasets

References

1. Alania, I. I. et al. 1964. Data on the flea fauna of Adzharia. – Proc. Armenian Anti-Plague Stn 3: 407–435 (in Russian).
2. Allred, D. M. 1968. Fleas of the National Reactor Testing Station. – Great Basin Nat. 28: 73–87.
3. Arai, H. P. and Mudry, D. R. 1983. Protozoan and metazoan parasites of fishes from the headwaters of the Parsnip and McGregor Rivers, British Columbia: a study of possible parasite transfaunations. – Can. J. Fish. Aquat. Sci. 40: 1676–1684.
4. Arthur, J. R. et al. 1976. Parasites of fishes of Aishihik and Stevens Lakes, Yukon Territory, and potential consequences of their interlake transfer through a proposed water diversion for hydroelectrical purposes. – J. Fish. Res. Board Can. 33: 2489–2499.
5. Bangham, R. V. 1955. Studies on fish parasites of Lake Huron and Manitoulin Island. – Am. Midl. Nat. 53: 184–194.
6. Blüthgen, N. and Fiedler, K. 2004. Preferences for sugars and amino acids and their conditionality in a diverse nectar-feeding ant community. – J. Anim. Ecol. 73: 155–166.
7. Blüthgen, N. et al. 2004. Bottom-up control and co-occurrence in complex communities: honeydew and nectar determine a rainforest ant mosaic. – Oikos 106: 344–358.
8. Burdelova, N. V. 1996. Flea fauna of some small mammals in Dzhungarskyi Alatau. – In: Burdelov, L. A. (ed.), Proc. Conf. Ecol. Asp. Epidemiol. Epizootol. of Plague and Other Dangerous Diseases. Middle Asian Scientific Anti-Plague Inst., pp. 119–120.
9. Chinniah, V. C. and Threlfall, W. 1978. Metazoan parasites of fish from the Smallwood Reservoir, Labrador, Canada. – J. Fish Biol. 13: 203–213.
10. Davis, R. M., Smith, R. T., Madon, B. M. and Sitko-Cleugh, E. 2002. Flea, rodent and plague ecology at Chichupate Campground, Ventura County, California. – J. Vector Ecol. 27: 107–127.
11. Dechtiar, A. O. 1972. Parasites of fish from Lake of the Woods, Ontario. – J. Fish. Res. Board Can. 29: 275–283.
12. Elshanskaya, N. I. and Popov, M. N. 1972. Zoologico-parasitological characteristics of the river Kenkeme valley (Central Yakutia). – In: Kolosova, L. D. and Lukyanova, I. V. (eds), Theriology, vol. 1. Nauka Publishing House Siberian Branch.
13. Koshkin, S. M. 1966. Data on the flea fauna in the Sovetskaya Gavan. – Proc. Irkutsk State Sci. Anti-Plague Inst. of Siberia and Far East 26: 242–248 (in Russian).
14. Krasnov, B. R. unpubl.
15. Krasnov, B. R. et al. 1997. Host-habitat relation as an important determinant of spatial distribution of flea assemblages (Siphonaptera) on rodents in the Negev Desert. – Parasitology 114: 159–173.
16. Leong, T. S. and Holmes, J. C. 1981. Communities of metazoan parasites in open water fishes of Cold Lake, Alberta. – J. Fish Biol. 18: 693–713.
17. Letov, G. S. et al. 1966. Rodents and their ectoparasites in the settlements of Tuva. – Proc. Irkutsk State Sci.c Anti-Plague Inst. of Siberia and Far East 26: 270–276 (in Russian).
18. Mikulin, M. A. 1958. Data on fleas of the Middle Asia and Kazakhstan. 5. Fleas of the Tarbagatai. – Proc. Middle Asian Sci.c Anti-Plague Inst. 4: 227–240 (in Russian).
19. Mikulin, M. A. 1959. Data on fleas of the Middle Asia and Kazakhstan. 10. Fleas of the eastern Balkhash desert, Trans-Alakul desert and Sungorian Gates. – Proc. Middle Asian Sci. Anti-Plague Inst. 6: 205–220 (in Russian).
20. Mikulin, M. A. 1959. Data on fleas of the Middle Asia and Kazakhstan. 8. Fleas of the Akmolinsk region. – Proc. Middle Asian Sci. Anti-Plague Inst. 5: 237–245 (in Russian).
21. Morlan, H. B. 1955. Mammal fleas of Santa Fe County, New Mexico. – Texas Rep. Biol. Med. 13: 93–125.
22. Nazarova, I. V. 1981. Fleas of the Volga-Kama Region. – Nauka Publishing House.
23. Pauller, O. F. et al. 1966. Ecological and faunistical review of mammalian and bird ectoparasites in the tularemia focus of the Selenga river delta. – Proc. Irkutsk State Sci. Anti-Plague Inst. of Siberia and Far East 26: 322–332 (in Russian).
24. Popova, A. S. 1967. Flea fauna of the Moyynkum desert. – In: Fenyuk, B. K. (ed.), Rodents and their ectoparasites. Saratov Univ. Press, pp. 402–406.
25. Reshetnikova, P. 1959. Flea fauna of the Kustanai region. – Proc. Middle Asian Sci. Anti-Plague Inst. 6: 261–265.
26. Sapegina, V. F. et al. 1981. Fleas of small mammals in northern foothills of Altai Mountains and Upper Ob river region. – In: Maximov, A. A. (ed.), Biological problems of natural nidi. Nauka Publishing House Siberian Branch, pp. 167–176.
27. Shwartz, E. A. et al. 1958. Fleas of rodents of the Frunze region. – Proc. Middle Asian Sci. Anti-Plague Inst. 4: 255–261 (in Russian).
28. Sineltschikov, V. A. 1956. Of flea fauna of the Pavlodar region. – Proc. Middle Asian Sci. Anti-Plague Inst. 2: 147–153 (in Russian).
29. Stanko, M. et al. 2002. Mammal density and patterns of ectoparasite species richness and abundance. – Oecologia 131: 289–295.
30. Syrvacheva, N. G. 1964. Data on the flea fauna of Kabardino-Balkarian ASSR. – Proc. Armenian Anti-Plague Stn 3: 389–405 (in Russian).
31. Vasiliev, G. I. 1966. On ectoparasites and their hosts in relation to the plague epizootic in Bajan-Khongor aimak (Mongolian People Republic). – Proc. Irkutsk State Sci. Anti-Plague Inst. of Siberia and Far East 26: 277–281 (in Russian).
32. Violovich, N. A. 1969. Landscape and geographic distribution of fleas. – In: Maximov, A. A. (ed.), Biological regionalization of the Novosibirsk Region. Nauka Publishing House Siberian Branch, pp. 211–221.
33. Vázquez, D. P. et al. 2005. Species abundance patterns and the distribution of specialization in host-parasite interaction networks.. – J. Anim. Ecol. 74: 946–955.
34. Vázquez, D. P. and Simberloff, D. 2002. Ecological specialization and susceptibility to disturbance: conjectures and refutations. – Am. Nat. 159: 606–623.
35. Vázquez, D. P. and Simberloff, D. 2003. Changes in interaction biodiversity induced by an introduced ungulate. – Ecol. Lett. 6: 1077–1083.
36. Williams, N. M. unpubl.
37. Yudin, B. S. et al. 1976. Small mammals of the northern Far East. – Nauka Publishing House Siberian Branch.
38. Zagniborodova, E. N. 1960. Fauna and ecology of fleas on the western Turmenistan. – In: Fenyuk, B. K. (ed.), Problems of Natural Nidi and Epizootology of Plague in Turkmenistan. Turkmenian Anti-Plague Stn and All-Union Sci. Anti-Plague Inst. Microb. pp. 320–334.
39. Zagniborodova, E. N., unpubl.