

Table S1. TBP-positive engorged ticks collected from wild animals and their distribution in the Mediterranean Rim

Tick genus	Number of tick species and number of TBPs detected per species	Stage	Number of countries with data and countries	Number of tick host species with data, and host species	Number of pathogenic genera/species and pathogens detected in ticks (^b bacteria, ^p parasite, ^v virus)
<i>Ixodes</i>	8 <i>I. acuminatus</i> (5) <i>I. festai</i> (2) <i>I. frontalis</i> (4) <i>I. hexagonus</i> (2) <i>I. ricinus</i> (32) <i>I. simplex</i> (1) <i>I. ventralloi</i> (5) <i>I. vespertilionis</i> (3)	Adults, nymphs, and larvae	7 Cyprus, France, Greece, Italy, Slovenia, Spain, and Turkey	23 Badgers, bats, birds, chamois, fallow deer, genets, hares, hedgehogs, jackals, lizards, lynxes, martens, mongooses, mouflons, polecats, red deer, red foxes, rodents, roe deer, weasels, wild boars, and wolves	39 <i>Anaplasma</i> spp. ^b , <i>A. marginale</i> ^b , <i>A. phagocytophilum</i> ^b , <i>A. ovis</i> ^b , <i>Bartonella</i> spp. ^b , <i>B. acomodis</i> ^b , <i>B. bacilliformis</i> ^b , <i>B. bovis</i> ^b , <i>B. chomelli</i> ^b , <i>B. tamiae</i> ^b , <i>B. tribocorum</i> ^b , <i>B. vinsonnii berkoffi</i> ^b , <i>Babesia</i> spp. ^p , <i>Ba. capreoli</i> ^p , <i>Ba. microti</i> ^p , <i>Ba. ovis</i> ^p , <i>Ba. rodaini</i> ^p , <i>Ba. venatorum</i> ^p , <i>Bo. afzelii</i> ^p , <i>Bo. burgdoferi</i> s.l. ^b , <i>Bo. burgdoferi</i> s.s. ^b , <i>Bo. garinii</i> ^p , <i>Bo. lusitaniae</i> ^b , <i>Bo. spielmanii</i> ^b , <i>Bo. valaisiana</i> ^b , <i>Bo. turdi</i> ^b , CCHF ^v , <i>C. burneti</i> ^b , <i>Candidatus</i> Noehrlichia mikurensis ^b , <i>Rickettsia</i> spp. ^b , <i>R. aeschlimannii</i> ^b , <i>R. africae</i> ^b , <i>R. helvetica</i> ^b , <i>R. hoogstraalii</i> ^b , <i>R. monacensis</i> ^b , <i>R. sibirica</i> ^b , <i>R. slovaca</i> ^b , <i>Theileria</i> spp. ^p ., and <i>T. annae</i> ^p
<i>Rhipicephalus</i>	6 <i>Rh (B). annulatus</i> (1) <i>Rh. bursa</i> (14) <i>Rh (B). kohlsi</i> (1) <i>Rh. ovis</i> (1) <i>Rh. pusillus</i> (2) <i>Rh. sanguineus</i> s.l. (18)	Adults, nymphs, and larvae	7 Cyprus, Greece, Israel, Italy, Palestine, Spain, and Turkey	15 Birds, fallow deer, genets, hares, hedgehogs, jackals, lynxes, martens, mongooses, mouflons, red deer, red foxes, roe deer, wild boars, and wolves	22 <i>Anaplasma</i> spp. ^b , <i>A. marginale</i> ^b , <i>A. phagocytophilum</i> ^b , <i>A. ovis</i> ^b , <i>Bartonella</i> spp. ^b , <i>Babesia</i> spp. ^p , <i>Ba. rodaini</i> ^p , <i>Bo. burgdoferi</i> s.l. ^b , <i>Ch. abortus</i> ^b , <i>C. burneti</i> ^b , <i>Ehrlichia</i> spp. ^b , <i>E. canis</i> ^b , <i>Rickettsia</i> spp. ^b , <i>R. massiliae</i> ^b , <i>R. slovaca</i> ^b , <i>Candidatus</i> <i>R. barbariae</i> ^b , <i>R. sibirica mongolitimonae</i> ^b , <i>Candidatus</i> <i>R. goldwasserii</i> ^b , <i>Theileria</i> spp. ^p , <i>T. buffeli</i> ^p , <i>T. orientalis</i> ^p , <i>T. ovis</i> ^p , and <i>T. sergenti</i> ^p
<i>Haemaphysalis</i>	5 <i>H. adleri</i> (1) <i>H. erinacei</i> (1) <i>H. parva</i> (3) <i>H. punctata</i> (11) <i>H. sulcata</i> (5)	Adults, nymphs, and larvae	7 Cyprus, Greece, Israel, Italy, Slovenia, Spain, and Turkey	13 Birds, fallow deer, golden jackals, hares, hedgehogs, lizards, martens, mouflons, red deer, red foxes, rodents, roe deer, and wild boars	21 <i>Anaplasma</i> spp. ^b , <i>A. phagocytophilum</i> ^b , <i>A. ovis</i> ^b , <i>B. bacilliformis</i> ^b , <i>B. bovis</i> ^b , <i>B. chomelli</i> ^b , <i>Ba. crassa</i> ^p , <i>Ba. rossii</i> ^b , <i>Borrelia</i> spp. ^b , <i>Bo. garinii</i> ^b , <i>Ch. abortus</i> ^b , <i>C. burneti</i> ^b , <i>E. canis</i> ^b , <i>Rickettsia</i> spp. ^b , <i>R. aeschlimannii</i> ^b , <i>R. hoogstraalii</i> ^b , <i>R. massiliae</i> ^b , <i>R. monacensis</i> ^b , <i>R. slovaca</i> ^b , and <i>Candidatus</i> <i>R. goldwasserii</i> ^b ,
<i>Hyalomma</i>	6 <i>Hy. aegyptium</i> (4), <i>Hy. anatolicum excavatum</i> (1) <i>Hy. detritum</i> (1) <i>Hy. lusitanicum</i> (1) <i>Hy. marginatum</i> (13) <i>Hy. rufipes</i> (3)	Adults, nymphs, and larvae	10 Algeria, Cyprus, Greece, France, Israel, Italy, Morocco, Palestine, Spain, and Turkey	12 Birds, fallow deer, hares, hedgehogs, lynxes, mouflons, red deer, red foxes, rodents, roe deer, tortoises, and wild boars	16 <i>A. marginale</i> ^b , <i>A. phagocytophilum</i> ^b , <i>Babesia</i> spp. ^p , <i>Ba. occultans</i> ^p , CCHF ^v , <i>C. burneti</i> ^b , <i>Ehrlichia</i> spp. ^b , <i>Rickettsia</i> spp. ^b , <i>R. aeschlimannii</i> ^b , <i>R. africae</i> ^b , <i>R. raoultii</i> ^b , Tamdy orthonairovirus ^v , <i>Theileria</i> spp. ^p , <i>T. buffeli</i> ^p , <i>T. orientalis</i> ^p and <i>T. sergenti</i> ^p
<i>Dermacentor</i>	1 <i>D. marginatus</i> (12)	Adults, nymphs, and larvae	5 Algeria, France, Italy, Slovenia, and Spain	10 Chamois, hares, fallow deer, jackals, martens, red deer, red foxes, rodents, roe deer, and wild boars	12 <i>A. marginale</i> ^b , <i>A. phagocytophilum</i> ^b , <i>B. bovis</i> ^b , <i>B. chomeli</i> ^b , <i>Babesia</i> spp. ^p , <i>Bo. burgdoferi</i> s.l. ^b , <i>Ehrlichia</i> spp. ^b , <i>E. canis</i> ^b , <i>Rickettsia</i> spp. ^b , <i>R. raoultii</i> ^b , <i>R. slovaca</i> ^b , and <i>Theileria</i> spp. ^p
<i>Amblyomma</i>	1 <i>Amblyomma</i> sp. (1) <i>Am. marmoreum</i> (2)	Adults, nymphs, and larvae	3 Greece, Israel, and Italy	1 Birds	2 <i>Ehrlichia</i> spp. ^b and <i>R. aeschlimannii</i> ^b
<i>Ornithodoros</i>	3 <i>O. erritacus</i> (3) <i>O. maritimus</i> (1) <i>O. normandi</i> (1)	Adults	3 Morocco, Spain, and Tunisia	2 Bats and rodents	5 <i>Bo. crocidurae</i> ^b , <i>Bo. hispanica</i> ^b , <i>Bo. merionesi</i> ^b , <i>Candidatus</i> <i>R. Africa septentrioalis</i> ^b , and Maeбан/Maeбан-like virus ^v
<i>Argas</i>	2 <i>A. transgariepinus</i> (1) <i>A. vespertilionis</i> (2)	Adults	1 Italy	1 Bats	2 <i>Bartonella</i> spp. ^b and <i>Rickettsia</i> spp. ^b
Unknown	X X	X	3 Greece, Palestine, and Turkey	3 Birds, lizards, and rodents	3 <i>Rickettsia</i> spp. ^b , <i>R. aeschlimannii</i> ^b , and <i>R. africae</i> ^b

Table S2: TBP diversity in wild animals and their ticks from the Mediterranean Rim. *Wild carnivores: Badger, Genet, Golden jackal, Marten, Mongoose, Otter and Wolf

Animal name (Number of countries with data available)	Wild boar (6)	Red deer (5)	Birds (4)	Rodent (7)	Wild carnivores* (6)	Red fox (5)	Tortoise (2)	Fallow deer (2)	Roe deer (1)	Hedgehog (4)	Mouflon (2)	Lizard (2)	Chamois (2)	Hare (3)	Bat (1)	Porcupine (2)	Swamp deer (1)
Pathogens found in ticks																	
Number of studies	26	24	21	18	13	12	12	11	8	8	7	4	3	2	2	0	0
Number of pathogens found in ticks	Bacteria: 9 Parasite: 5	Bacteria: 15 Parasite: 1 Virus: 1	Bacteria: 16 Parasite: 4 Virus: 2	Bacteria: 17 Parasite: 3 Virus: 1	Bacteria: 8	Bacteria: 8 Parasite: 5	Bacteria: 4 Virus: 1	Bacteria: 9 Parasite: 1	Bacteria: 10 Parasite: 4	Bacteria: 6	Bacteria:7 Parasite: 4	Bacteria: 9	Bacteria: 2	Bacteria: 5	Bacteria: 4		
Percentage of TBPs in ticks	27.9%	26.2%	36.1%	34.4%	13.1%	21.3%	9.9%	16.4%	22.9%	9.9%	18%	14.8%	3.3%	8.2%	6.6%	0%	0%
Pathogens found in wild animals																	
Number of studies	11	22	4	28	11	13	2	6	12	0	1	3	3	3	0	3	2
Number of pathogens found in animals	Bacteria: 3 Parasite:2 Virus:2	Bacteria: 2 Parasite: 4	Bacteria: 5	Bacteria: 20 Parasite: 2 Virus: 1	Bacteria:2 Parasite:5	Bacteria: 3 Parasite: 5	Parasite: 1 Virus: 1	Bacteria: 1	Bacteria: 2 Parasite: 6 Virus 2	0	Bacteria: 3	Parasite:2	Parasite: 3	Parasite: 2	0	Bacteria: 1	Bacteria: 2
Percentage of TBPs in animals	14%	12%	10%	46%	14%	16%	4%	2%	20%	0%	6%	4%	6%	4%	0%	2%	4%