

Table 3. Effective sizes of the different brown bear populations estimated after maximum of likelihood and Bayesian analyses

L, nt	Population	Θ_{MLE}	Ne ($\mu = 10\%$ subst./MY)	Ne ($\mu = 29,8\%$ subst./MY)	Θ_{MPE}	Ne ($\mu = 10\%$ subst./MY)	Ne ($\mu = 29,8\%$ subst./MY)
Long							
176	Spain. present	0.0083 (2.4%)	3303 [1352-7528]	1108 [454-2526]	0.0072 (20%)	2885 [1109-6848]	968 [372-2298]
177	Spain. holocene	0.0236 (6.3%)	9453 [3485-27642]	3172 [1170-9276]	0.0200 (69%)	8012 [3437-26108]	2689 [1153-8761]
177	Spain. pleistocene	0.0634	25363 [8946-92826]	8511 [3002-31150]	0.0636	25459 [9418-109411]	8543 [3160-36715]
177	Spain. ancient	0.0758	30306 [15082-63219]	10170 [5061-21214]	0.0708	28331 [14994-63438]	9507 [5032-21288]
177	Europe. present	0.0510	20396 [9039-48019]	6844 [3033-16114]	0.0459	18364 [8954-47156]	6162 [3005-15824]
177	Europe. holocene	0.0695	27813 [12776-64051]	9333 [4287-21494]	0.0645	25816 [12659-67268]	8663 [4248-22573]
177	Europe. pleistocene	0.0845	33801 [10801-150068]	11343 [3624-50358]	0.0893	35734 [11446-179402]	11991 [3841-60202]
177	Europe. ancient	0.0873	34902 [17345-71909]	11712 [5821-24131]	0.0829	33176 [17205-71534]	11133 [5773-24005]
Short							
114	Spain. present	0.0115 (3.1%)	4615 [1892-10582]	1549 [635-3551]	0.0100 (30%)	4011 [1448-9536]	1346 [486-3200]
115	Spain. holocene	0.0345 (5.4%)	13780 [5185-34784]	4624 [1740-11673]	0.0312 (56%)	12475 [6315-31934]	4186 [1784-10716]
115	Spain. pleistocene	0.0751	30033 [9742-114701]	10078 [3269-38490]	0.0703	28138 [10116-123453]	9442 [3395-41427]
115	Spain. ancient	0.0954	38156 [18378-77050]	12804 [6167-25856]	0.0794	31774 [17947-75367]	10662 [6022-25291]
115	Europe. present	0.0577	23092 [9499-57628]	7749 [3188-19338]	0.0506	20223 [9714-60021]	6786 [3260-20141]
115	Europe. holocene	0.0852	34097 [14527-83593]	11442 [4875-28051]	0.0831	33228 [14420-85677]	11150 [4839-28751]
115	Europe. pleistocene	0.0862	34471 [10087-161310]	11568 [3385-54131]	0.0816	32656 [10650-192942]	10958 [3574-64746]
115	Europe. ancient	0.1063	42508 [20381-92200]	14265 [6839-30940]	0.1003	40121 [18823-81444]	13463 [6317-27330]

L, length of the dataset (in nucleotides); Ne, effective size; MLE, Most Likely Estimate (Maximum of Likelihood analysis); MPE, Most Probable Estimate (Bayesian analysis). The percentages in parentheses refer to the possible reduction in effective size between successive time periods in the Spanish population. The numbers between brackets refer to the 95% confidence range for the different effective sizes estimated. Two mutation rates were used here (see *Materials and Methods*) after conversion in percentage mutations per site per generation. Models of molecular evolution: F84 with Gamma correction (alpha-shape parameter = 0.75 and 0.289 for the short and long datasets, respectively) and 47.806 (and 70.209) as transition/transversion ratio.