Wild boar was the most important food item in Wolf diet in the southern side of the Casentinesi Forest, a protected area of northern Apennines ranging from 400 to 1,520 m u.s.l. The age of wild boars consumed by wolves was estimated using teeth and bone fragments compared with a reference collection. Data about live weights of boars at various ages allowed to infer the weight of preyed individuals. On the basis of 240 Wolf scats analysis we determined for Wild boar a frequency of occurrence of 52.5%, a mean relative volume of 45.6% and a relative biomass of 39.9%. This species was increasingly used from 1988 to 1992. Moreover taking into account the availability of Wild boar in the study area also a significant increase of selection (expressed as use/availability ratio) for this prey species was evident. Its use by Wolf was inversely correlated with the occurrence of cervids in the diet. Adult boars, over 40 kg, appeared infrequently in Wolf diet, i.e. less than 6%, conversely piglets (less than 25 kg) represented the more used age class with over 77% of occurrences. Taking into account data on population structure we found that piglets were consumed 1.8 times more than their frequency in the population. They seemed to be preyed more between July and October than before, even if the peak of births took place in April. This was confirmed by the finding that weight classes between 13 and 23 kg (i.e. 6 to 12 months of age) were the most used. The result may suggest an active selection towards easy but also remunerative preys and/or a more active defence of piglets by sows in their first months of life. Wild boar confirmed to be a key prey species for wolves also in highly natural environments with large populations of other wild ungulates. This species with his large productivity may buffer the effects of Wolf predation on cervids populations helping to maintain a rich and diverse ungulates community.