

Soofi, M., Ghoddousi, A., Hamidi, A. K., Ghasemi, B., Egli, L., Voinopol-Sassu, A.-J., Kiabi, B. H., Balkenhol, N., Khorozyan, I. and Waltert, M. 2017. Precision and reliability of indirect population assessments for the Caspian red deer *Cervus elaphus maral*. – Wildlife Biology doi: 10.2981/wlb.00230

Appendix 1

Table A1. Red deer *Cervus elaphus maral* habitats in Golestan National Park surveyed in this study.

Habitat	Description of species composition
Closed forest (CF)	Mainly <i>Quercus castaneifolia</i> , <i>Carpinus betulus</i> , <i>Acer velutinum</i> , <i>Cerasus avium</i> , <i>Sorbus torminalis</i> , <i>Fraxinus excelsior</i> , <i>Alnus glutinosa</i> , <i>Acer capadocicum</i> , and <i>Ilex spinigera</i> . Understory is covered by grasses and herbs, e.g. <i>Danea racemosa</i> , <i>Euphorbia amygdaloides</i> , <i>Brachypodium sylvaticum</i> , <i>Parietaria officinalis</i> , <i>Carex sylvatica</i> , <i>Festuca gigantea</i> and <i>Poa nemoralis</i> .
Closed scrubland (CS)	Covered predominantly by invasive fern <i>Pteridium aquilinum</i> and also by <i>Crataegus pentagyna</i> , <i>Crataegus monogyna</i> , <i>Parrotia persica</i> , <i>Prunus divaricata</i> , <i>Paliurus spina-christi</i> , <i>Mespilus germanica</i> , <i>Thalictrum minus</i> , <i>Euonymus latifolia</i> , <i>Vicia variabilis</i> , <i>Lathyrus pratensis</i> , <i>Brachypodium sylvaticum</i> , <i>Dactylis glomerata</i> , <i>Rubus doliocarpus</i> and <i>Rosa canina</i> .
Open scrubland (OS)	Assorted by scattered scrub layers comprising <i>Quercus macranthera</i> , <i>Carpinus orientalis</i> , <i>Acer monspessulanum</i> , <i>Malus orientalis</i> , <i>Crataegus microphylla</i> , <i>Pyrus boissieriana</i> , <i>Lonicera floribunda</i> , <i>Rubus sanctus</i> , <i>Prunus divaricata</i> , <i>Rahmnus pallasii</i> , <i>Cerasus microcarpa</i> , <i>Hypericum perforatum</i> , <i>Agrimonia eupatoria</i> , <i>Dactylis glomerata</i> , <i>Heteropappus altaicus</i> , <i>Botrichloa ischaemum</i> and <i>Rosa canina</i> .

Reference: Akhani, H. 2005. The illustrated flora of Golestan National Park. – Tehran Univ. Press.

Table A2. Deer density estimates and their confidence intervals in different habitats. CI – confidence interval, SE – standard error.

Habitat	Density, ind. km ⁻² ± SE	95% CI of density	Habitat size, km ²
Closed forest	0.35 ± 0.07	0.22 - 0.48	247.58
Open scrubland	0.19 ± 0.08	0.04 - 0.34	98.44
Closed scrubland	1.09 ± 0.41	0.29 - 1.89	75.75
All deer range	0.46 ± 0.11	0.25 - 0.67	421.77