**Supplementary Material**

 **Table S1.** Some examples of carcass removal by different scavenger species and groups around the world. The total carrion biomass monitored or estimated for these calculations is also shown where available (mean ± SE).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Location | Carrion type | Carrion biomass (kg) | Dominant scavenger(s) | Contribution to carrion removal | Reference |
| Ethiopia | Abattoir |  | Vultures (*Gyps* spp.)  | 57% | (Buechley et al. 2022) |
| Australia | Rabbits (*Oryctolagus cuniculus*) |  | Multiple avian spp.  | 17% | (Peisley et al. 2017) |
| Argentina | Rabbits (*Oryctolagus cuniculus*) |  | Multiple avian spp.  | 100% | (Sebastian-Gonzalez et al. 2013) |
| Atlantic Spain  | Livestock carcasses | ~3,225 | Griffon vulture (*Gyps fulvus*) | 51 % | Mateo-Tomás(unpubl. data) |
| Hunting remains | ~2,025 | Griffon vulture (*Gyps fulvus*) | 65 % | (Mateo-Tomás et al. 2017) |
| Mediterranean Spain | Hunting remains | ~1,628 | Griffon vulture (*Gyps fulvus*) | 32 % |
| Cinereous vulture(*Aegypius monachus*) | 7 % |
| South Africa | Wild ungulate remains | ~2,600 | White-backed vulture (*Gyps africanus*) | 37 % |
| USA | Wolf kills | 13,220 ± 383.9\* | Common raven (*Corvus corax*) | ~8 % | (Wilmers et al. 2003) |
| Hunting remains | 33,203 ± 993.0\* | Common raven (*Corvus corax*) | ~72 % |
| Bald eagle (*Haliaeetus leucocephalus*) | ~27 % |
| Australia | Grey kangaroo (*Macropus giganteus*) | 1,230 | Dingo (*Canis dingo*), red fox (*Vulpes vulpes*), Australian raven (*Corvus coronoides*), Brushtail possum (*Trichosurus vulpecula*) | 100 % (meat only) | (Spencer 2022) |
| Red kangaroo (*Osphranter rufus*) | 1,005 | Dingo (*Canis dingo*), Australian raven (*Corvus coronoides*), Wedge-tailed eagle (*Aquila audax*) | 100 % (meat only) |
| Atlantic Spain  | Livestock carcasses | ~3,225 | Red fox (*Vulpes vulpes*) | 10 % | P. Mateo-Tomás(unpubl. data) |
| Brown bear (*Ursus arctos*) | 7 % |
| Wolf(*Canis lupus*) | 6 % |
| Hunting remains | ~2,025 | Wild boar (*Sus scrofa*) | 17 % | (Mateo-Tomás et al. 2017) |
| Red fox (*Vulpes vulpes*) | 8 % |
| Wolf(*Canis lupus*) | 3 % |
| MediterraneanSpain | Hunting remains | ~1,628 | Wild boar (*Sus scrofa*) | 43 % |
| Red fox (*Vulpes vulpes*) | 14 % |
| Rabbits (*Oryctolagus cuniculus*) |  | *Vulpes vulpes*, *Genetta genetta*, *Sus scrofa* | 59 % | (Sebastian-Gonzalez et al. 2020) |
| South Africa | Wild ungulate remains | ~2,600 | Lion(*Panthera leo*) | 25 % | (Mateo-Tomás et al. 2017) |
| Spotted hyena(*Crocuta crocuta*) | 20 % |
| Bushpig(*Potamochoerus larvatus*) | 13 % |
| USA | Wolf kills | 13,220 ± 383.9\* | Coyote (*Canis latrans*) | ~20 % | (Wilmers et al. 2003) |
| Australia | Rabbits (*Oryctolagus cuniculus*) | 27 | Blowflies (*Chrysomya* spp.) (obligate)Flies (Sarcophagidae, Calliphoridae, Muscida) (obligate and facultative) | 50% | (Barton & Evans 2017) |
| USA | Pigs (*Sus scrofa*) |  | Blowflies (*Chrysomya* spp.) (obligate)Flies (Sarcophagidae, Calliphoridae, Muscida) (obligate and facultative) | 90% | (Payne 1965) |

**References**

Barton PS, Evans MJ (2017) Insect biodiversity meets ecosystem function: differential effects of habitat and insects on carrion decomposition. *Ecological Entomology* 42: 364-374.

Buechley ER, Murgatroyd M, Ruffo AD, Bishop RC, Christensen T, Marra PP, Sillett TS, et al. (2022) Declines in scavenging by endangered vultures in the Horn of Africa. *The Journal of Wildlife Management* 86: e22194.

Mateo-Tomás P, Olea PP, Moleón M, Selva N, Sánchez-Zapata JA (2017) Both rare and common species support ecosystem services in scavenger communities. *Global Ecology and Biogeography* 26: 1459-1470.

Payne JA (1965) A summer carrion study of the baby pig *Sus scrofa* Linnaeus. *Ecology* 46: 592-602.

Peisley RK, Saunders ME, Robinson WA, Luck GW (2017) The role of avian scavengers in the breakdown of carcasses in pastoral landscapes. *Emu* 117: 68-77.

Sebastian-Gonzalez E, Antonio Sanchez-Zapata J, Antonio Donazar J, Selva N, Cortes-Avizanda A, Hiraldo F, Blazquez M, et al. (2013) Interactive effects of obligate scavengers and scavenger community richness on lagomorph carcass consumption patterns. *Ibis* 155: 881-885.

Sebastian-Gonzalez E, Morales-Reyes Z, Botella F, Naves-Alegre L, Perez-Garcia JM, Mateo-Tomas P, Olea PP, et al. (2020) Network structure of vertebrate scavenger assemblages at the global scale: drivers and ecosystem functioning implications. *Ecography* 43: 1143-1155.

Spencer E (2022) The web of death: Evaluating the effects of carrion on ecological communities in three bioregions in Australia. PhD Thesis, University of Sydney.