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Resource and Mate Defence Influence the Outcome of Intergroup Encounters in Wild Crested Macaques (*Macaca nigra*)

Laura Martinez-Iñigo^a, Muhammad Agil^b, Antje Engelhardt^c, Malgorzata Pilot^d, Bonaventura Majolo^a

^aSchool of Psychology, University of Lincoln, UK

^bFaculty of Veterinary Medicine, Bogor Agricultural University, Indonesia

^cSchool of Natural Sciences & Psychology, Liverpool John Moores University, UK

^dSchool of Life Sciences, University of Lincoln, UK

lmartinezinigo@lincoln.ac.uk

Female reproduction is mostly limited by resources such as food, while male reproduction is mainly restricted by access to females. Intergroup encounters can affect access to both, resources and mates. In multimale-multifemale primate species, females are expected to protect resources during intergroup encounters, participating more in areas heavily used by their group. Males should aim to prevent matings between in-group females and out-group males, either driving the males away or by herding and consorting the females. We investigated which of these mechanisms influenced the outcome of intergroup encounters in crested macaques (*Macaca nigra*). We collected data for nine consecutive months on three habituated groups in Tangkoko Nature Reserve

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(North Sulawesi, Indonesia), yielding information on 163 intergroup encounters. Odds of winning an intergroup encounter (i.e. displacing the opponent) were higher for those groups with more females and greater use of the area where the encounter happened. There was evidence of female resource defence. However, chances of winning were also greater for groups with fewer females displaying sexual swellings. Such females are often herded and consorted by in-group males, preventing them from participating during encounters. Our results suggest that female resource defence and male mate defence occur simultaneously and influence the outcome of intergroup encounters.