

Secrets of orangutan language revealed

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"Climb on me", "climb on you" and "resume play" are among the requests wild orangutans make to each other, researchers say.

In the first in-depth study of gestures among [wild orangutans](#), University of Exeter scientists identified 11 vocal signals and 21 physical "[gesture types](#)".

Sounds included the "kiss squeak" (a sharp kiss noise created while inhaling), the "grumph" (a low sound lasting one or two seconds made on the inhale), the "gorkum" (a kiss squeak followed by a series of multiple grumphs) and the "raspberry".

Gestures included beckoning, stamping, pushing out a lower lip, shaking objects and "presenting" a [body part](#).

The findings reveal orangutans are highly responsive to [communication](#), reacting either before gesturing ended or in less than a second in 90% of communications (excluding those where they didn't notice the communication).

"We observed orangutans using sounds and gestures to achieve eight different 'goals' – things they wanted another orangutan to do," said University of Exeter scientist Dr. Helen Morrogh-Bernard, founder and co-director of the Bornean Nature Foundation (BNF).

"Orangutans are the most solitary of all the apes, which is why most studies have been done on African apes, and not much is known about wild orangutan gestures.

"We spent two years filming more than 600 hours of footage of orangutans in the Sabangau peat swamp forest in Borneo, Indonesia.

"While some of our findings support what has been discovered by zoo-based studies, other aspects are new—and these highlight the importance of studying communication in its natural context."

One of the new findings is that, while orangutans favour hands over feet when making gestures, they use their feet more than chimpanzees for this purpose.

Video footage of 16 orangutans (seven mother-child pairs and a pair of siblings) yielded a total of 1,299 communicative signals—858 [vocal signals](#) and 441 gestures.

The researchers say more signals are likely to be identified in the future.

The eight identified "goals" of communication were: "acquire object" (signaller wants something), "climb on me", "climb on you", "climb over", "move away", "play change: decrease intensity", "resume play" and "stop that".

In terms of physical communication, juvenile orangutans mostly used visual gestures—while adults used gestures and physical touching equally.

Touching was more commonly used when communicating with an orangutan that was not paying attention.

Vocal communication increased when the other [orangutan](#) was out of sight.

The research team included BNF, the University of St Andrews and the Centre for International Cooperation in Sustainable Management of Tropical Peatlands (CIMTROP) at the University of Palangkaraya.

The paper, published in the *International Journal of Primatology*, is titled "Gesture use in communication between mothers and offspring in wild orang-utans (*Pongo pygmaeus wurmbii*) from the Sabangau peat-swamp forest, Borneo."

More information: Andrea Knox et al. Gesture Use in Communication between Mothers and Offspring in Wild Orang-Utans (*Pongo pygmaeus wurmbii*) from the Sabangau Peat-Swamp Forest, Borneo, *International Journal of Primatology* (2019). [DOI: 10.1007/s10764-019-00095-w](https://doi.org/10.1007/s10764-019-00095-w)

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