

PRESBYOPIA IN OLD WILD BONOBOBOS (*PAN PANISCUS*)

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Presbyopia, or long-sightedness, is one of the signs of senescence in humans. Many people first recognize it when they approach 40-years-old, though presbyopia progresses gradually with age. Not surprisingly, presbyopia has been reported in old, wild chimpanzees (*Pan troglodytes*) at Bossou (Guinea) and Mahale (Tanzania). Bonobos are one of our closest living relatives (98.7% identical in genome level) and like us have long development periods and long longevity. We therefore expected to find presbyopia in bonobos. Here we report evidence of presbyopia in wild bonobos at Wamba, Democratic Republic of Congo, during grooming interactions. We used an interchangeable-lens camera to make precise measurements of ear dimensions for each individual, which we then used to determine grooming distance. Age estimates for older individuals were taken when the group was first identified in the late 1970s to early 1980s. We found that grooming distance increases with age. All four bonobos that showed symptoms of presbyopia, i.e. long grooming distance, were estimated to be over 40 years old in 2015. We confirmed that when grooming others, the 4 older individuals kept significantly longer distance between their hands and eyes than did younger individuals. This result indicates that bonobos begin to experience presbyopia in their 40s as do human beings.