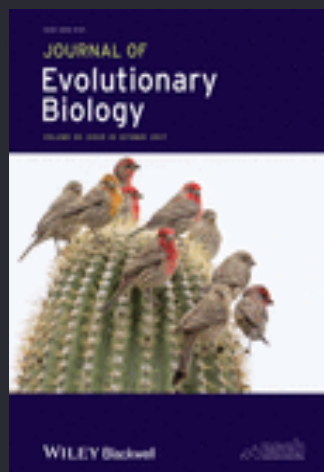




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Is bigger better? The relationship between size and reproduction in female Asian elephants

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Abstract

The limited availability of resources is predicted to impose trade-offs between growth, reproduction and self-maintenance in animals. However, although some studies have shown that early reproduction suppresses growth, reproduction positively correlates with size in others. We use detailed records from a large population of semi-captive elephants in Myanmar to assess the relationships between size (height and weight), reproduction and survival in female Asian elephants, a species characterized by slow, costly life history. Although female height gain during the growth period overlapped little with reproductive onset in the population, there was large variation in age at first reproduction and only 81% of final weight had been reached by peak age of reproduction at the population level (19 years). Those females beginning reproduction early tended to be taller and lighter

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