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40 years of research at the Taï Chimpanzee Project

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Almost 40 years ago, in the summer of 1979, Christophe and Hedwige Boesch arrived in Taï National Park, Côte d'Ivoire, to start the first chimpanzee long-term field site observing wild chimpanzees living in a primary rain forest. Christophe and Hedwige had chosen to study the chimpanzees in Taï, motivated by rumours that these chimpanzees would use hammers to pound nuts—a tool use not known in chimpanzees—and to provide data for a meaningful comparison with the savannah-woodland dwelling chimpanzees of Gombe and Mahale (Boesch & Boesch 1994).

After setting camp in the area of the UNESCO Man and the Biosphere Programme (Figure 1), they started to follow the chimpanzees and tried to habituate them without the aid of provisioning. Quickly they realised that the black shadows, they met occasionally in the forest, would dodge them again and again. After endless and unsuccessful attempts to come close to the chimpanzees and observe their behaviour, they decided to change their tactic and announce their arrival to the chimpanzees by tongue-clacking, in the hope the chimpanzees would look at them before disappearing and as such getting accustomed to the presence of the observers. Although there was no immediate improvement, by 1982 Christophe and Hedwige were able to have some direct observations. It took them, however, another two years, before the first individuals had enough trust to accept their presence even when resting. The year of 1985 marks the beginning of data collection in the first community of Taï chimpanzees, the North group (Boesch & Boesch-Achermann 2000).

The first years of the Taï Chimpanzee Project, Christophe and Hedwige focused on the nut-cracking behaviour and the hunting behaviour. Very quickly they observed that the chimpanzees in Taï would use wooden and stone hammers, depending on the hardness of the nut shell, cracking at least five different types of nuts (Boesch & Boesch 1982, 1984). These observations were pioneering for the work on chimpanzee cultures that started at a later point in time (Whiten *et al.* 1999). At the same time Christophe realised that yet another behaviour, thought to

Figure 1. North Camp of the Taï Chimpanzee Project in 2018 in the middle of the National Park. This is the original camp Christophe and Hedwige Boesch were living with their family until the 1990s (photo courtesy of Tokyo Broadcasting Station).

be prominently involved in human evolution, was common in the Taï chimpanzees: cooperative hunting for monkeys (Boesch & Boesch 1989; Boesch 2002).

Starting in the late 1980s, Christophe and Hedwige were joined by field assistants from the villages close by to help them observing the behaviour of the chimpanzees. Gregoire Nohon and Honora Kphazi were the first ones to follow chimpanzees and became the role models for many young people from the villages, who came to the Taï Chimpanzee Project to work. With these two, the longterm data collection of behavioural focal observations started in the early 1990s.

When Christophe Boesch became director of the newly founded Max Planck Institute for Evolutionary Anthropology (MPI EVA) in 1997, the heydays of the Project started. Project staff habituated three additional neighbouring communities: South and Middle group were finally habituated in 1997 and 1998 respectively, and in East group staff started to collect behavioural data starting in 2007. Students from the MPI EVA came to Taï and investigated wide ranges of topics in behavioural ecology related to conflict (Wittig & Boesch 2003, 2010), communication (Crockford & Boesch 2003; Herbinger *et al.* 2009), cognition (Normand *et al.* 2009; Sirianni *et al.* 2015), competition (Anderson *et al.* 2002; Deschner *et al.* 2004; Stumpf & Boesch 2005), cooperation (Gomes & Boesch 2009, 2011), culture (Luncz *et al.* 2012), conservation (Campbell *et al.* 2008) and many other topics. At the same time the Taï Chimpanzee Project also hosted international researchers from outside the MPI, adding expertise to the project (*e.g.*, archaeological techniques (Mercader *et al.* 2002), anatomical expertise (Zihlman *et al.* 2004)).

The Taï Chimpanzee Project, however, also suffered setbacks. The chimpanzee population had to cope with extensive individual losses due to zoonotic diseases transmission from human respiratory viruses (Köndgen *et al.* 2008). Only after rigorous quarantine and hygiene rules with strict reinforcement in the years 2010–2012, respiratory disease transmission was stopped (Grützmacher *et al.* 2017) and the population started slowly to recover. A veterinary program led by Fabian Leendertz of the Robert Koch Institute in Berlin (Germany) guarantees the constant presence of a qualified veterinarian in the field. This program, apart from its crucial contribution to the chimpanzee health, has also discovered a wide range of pathogens with formerly unknown effects on chimpanzee (*e.g.*, Hoffmann *et al.* 2017).

Planning for his retirement, Christophe Boesch handed over responsibility for the Taï Chimpanzee Project to Roman Wittig and Catherine Crockford in 2013. Since then staff members habituated a sympatric living sooty mangabey group, in order to compare the socio-ecology and cognition of both species (Mielke *et al.* 2017, 2018), and started to habituate the fifth community of chimpanzees in the Northeast of the research area, allowing us to better observe intergroup encounters (Samuni *et al.* 2017). With Cathy and Roman leading the project, research took new direction using supporting hormonal measures (Samuni *et al.* 2018; Preis *et al.* 2018), experimental work (Crockford *et al.* 2017; Sirianni *et al.* 2018) and additional comparative set-ups with other species (Surbeck *et al.* 2017a,b).

The Taï Chimpanzee Project will celebrate 40 years of research with an international scientific symposium held 29–31 May 2019 at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. During the year 2019 a book looking back at 40 years of research in Taï will be published by Cambridge University Press.

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