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The late John Aspinall (1926-2000) created and financed the Howletts and Port Lympne zoological parks in Kent in 1959 and 1975 respectively, and in 1984 founded The Aspinall Foundation as a UK-registered charity (under the name of The Howletts and Port Lympne Foundation, and subsequently The John Aspinall Foundation). The vision of The Aspinall Foundation has always been to contribute to global species conservation through integrating *ex situ* and *in situ* conservation activities.

Elephants and rhinos have been considered as particularly important species by the Foundation throughout its history. Within a year of creating the Foundation, John Aspinall pioneered efforts to save the Sumatran rhino from extinction (Figure 1; see colour plates: page vii). On 24 May 1985 an agreement was signed between the Foundation and the government of Indonesia to create a Sumatran rhino conservation project (Aspinall 1985b; Nardelli 1985, 1988; Martin 1989). By August 1985 a base-camp had been constructed in Sumatra in a forest area where the rhinos were doomed by the extension of logging activities, and on the 25 November the first Sumatran rhino was captured, to be named *Torgamba* (Nardelli 1986). *Torgamba* travelled to Port Lympne in 1986, where he was paired briefly with a female (*Subur*) before she died later the same year (Furley 1993), then with another female (*Meranti*) from 1988 until her death in November 1994. *Meranti*'s post-mortem analyses revealed a large tumour in her uterus, and also suggested she was much older than previously thought (Kitchener 1997), providing a probable explanation for the lack of reproduction during her time at Port Lympne. *Torgamba* was subsequently returned to Sumatra in 1998 to the Sumatran Rhino Sanctuary in Way Kambas National Park (Litchfield 1998).

The captive-breeding programme initiated by John Aspinall was taken on by several American zoos from 1987 (Nardelli 1987; Aspinall 1990), finally resulting in a birth in captivity in 2001, in Cincinnati; the only previous captive-birth of the species being in Calcutta in 1889 (Rookmaaker 1998, Litchfield 2001).

Javan rhino have also benefited from considerable support from the Foundation, including a donation in 2011 of 100 camera-traps to the Indonesian Ministry of Environment and Forestry following their urgent request for improving monitoring of the last surviving wild population, in Ujong Kulon National Park. Many of the first camera-trap images of Javan rhino were probably made with these traps. Also in 2011, the Foundation provided a grant to Save the Rhino International to support the Javan Rhino Study and Conservation Area project, aiming to increase suitable habitat for Javan rhinos in the Gunung Honje area.

Back in the UK, The Aspinall Foundation has been remarkably successful in breeding eastern black rhino, with 41 births between 1977 and February 2018 (Table 1). As a key component of the Foundation's philosophy has always been the reintroduction of species to protected areas whenever possible (Aspinall 1985a, 1987; Begg 1987), to date the Foundation has returned eight black rhino to Africa (Figure 2; see colour plates: page vii). The first, a male named *Bwana Kidogo*, went to a semi-wild breeding programme at Addo National Park in South Africa in 1995 (White 1995, 2000; Aspinall 1996). Having already sired at least two offspring at Addo, he was moved in October 2000 to Thabo Tholo, a 36,000 ha private reserve in northern province of South Africa, where he rapidly became the dominant male of his group and continued to sire more offspring (White 2001). Two female rhinos, *Kivu* and *Tana*, were subsequently also sent to Thabo Tholo in 2004, where *Kivu* has given birth to at least eight calves and *Tana* to at least three. The Thabo Tholo population has subsequently provided black rhino to reintroduction

projects in Tanzania (Fyumagwa and Nyahongo 2010), and more recently in Rwanda (Knight 2017). In June 2007 two five-year-old rhinos, a male (*Limpopo*) and a female (*Laikipia*) were sent from Port Lympne to the 140,000 ha Grumeti Reserve in Tanzania (Claire Lewis, in litt. 2007; Fyumagwa and Nyahongo 2010), and in June 2012 one male (*Monduli*) and two females (*Zawadi* and *Grumeti*) joined the reintroduction programme in the Mkomazi Rhino Sanctuary, Tanzania (Fitzjohn 2013), with both females having calves in 2016. The Aspinall Foundation has also supported other African rhino conservation work on an ad hoc basis (e.g. Hearn et al. 2000).

While most of our rhino births in the UK have been at Port Lympne, all 22 of our African elephant births have been at Howletts, between 1982 and 2014 (Table 2). Howletts therefore appears to be the largest-known breeder of African elephants in captivity, followed by San Diego, Ramat Gan and Cabarceno with at least 19, 18 and 17 recorded births respectively (ZIMS 2018). Eight different cows have given birth at Howletts (Table 2). In 2015 a bull elephant exchange between Europe's two largest African elephant holders, Howletts and Cabarceno, was organised to help try to address a general problem within Europe of

insufficient births to sustain a captive population (Van Wees et al. 2013).

The Aspinall Foundation has been working in Central Africa for over two decades, managing two gorilla reintroduction programmes with associated protected area management projects (King et al. 2012). These projects protect diverse habitats and fauna, including forest elephants in the Batéké Plateau National Park in Gabon (Hedwig et al. 2018; Fig. 3). In Congo-Brazzaville the challenges of implementation of the law enforcement activities related to the gorilla programme led to the creation of a new project focussing solely on facilitating wildlife law enforcement across the country. This project, known as PALF, has resulted in several ivory seizures in Congo, and court trials of major ivory dealers.

Most poignantly at this time, we remember that The Aspinall Foundation has provided considerable long-term financial support to the remarkable work of the late Esmond Bradley Martin and Lucy Vigne to uncover and disrupt the international trade in ivory and rhino horn (e.g. Martin and Martin 1989, 2013; Vigne and Martin 1989, 2000, 2008; Martin 2001, 2004; Martin et al. 2010; Martin and Vigne 2011, 2013; Vigne 2013). Esmond will of course be sorely missed, but his legacy provides hope for elephants and rhinos across the world.



Figure 3. A family of forest elephants caught on camera-trap in the Batéké Plateau National Park, Gabon. (Photo: The Aspinall Foundation).

Table 1. List of eastern black rhinos born at Port Lymgne and Howletts, 1977 to Feb 2018.

Local ID	Name	Sex	DoB	Sire	Dam	Notes
P77001	Basha	M	11/08/1977	Baringo	Naivasha	
P80027	-	F	18/05/1980	Baringo	Rukwa	
P83001	Kingo	M	02/10/1983	Baringo	Rukwa	
P83002	Arusha	F	11/11/1983	Baringo	Naivasha	
P89001	N'akuru	F	30/10/1989	Bwana Mkubwu	Rukwa	
P90000	Magadi	M	09/01/1990	Bwana Mkubwu	Naivasha	
P90002	Katakata	M	18/10/1990	Bwana Mkubwu	Mama Kidogo	
P91052	Bwana Kidogo	M	20/11/1991	Bwana Mkubwu	Naivasha	Sent to South Africa
P91062		M	28/12/1991	Basha	June	
P92105	Baringo II	M	03/12/1992	Baringo	Rukwa	
P95006	-	F	03/03/1995	Kingo	Mama Kidogo	
P96037	Mweru	M	12/09/1996	Gareth	N'akuru	
P96046	Ruaha	F	21/12/1996	Parky	Rukwa	
P97037	-	F	06/06/1997	Parky	Naivasha	
P98058	Tana	F	08/09/1998	Gareth	Etna	Sent to South Africa
P98083	Kivu	F	09/12/1998	Kingo	Vuyu	Sent to South Africa
P99015	Magadi	M	09/02/1999	Gareth	Naivasha	
P99052	Rufiji	F	21/06/1999	Gareth	Arusha	
P99082	Zambezi	M	29/10/1999	Gareth	N'akuru	
P99089	Galana	F	22/11/1999	Gareth	Rukwa	
P21025	Solio	F	30/07/2001	Gareth	Rukwa	
P21059	Limpopo	M	23/10/2001	Kingo	Etna	Sent to Tanzania
P21034	Vungu	M	08/11/2001	Kingo	Vuyu	
P22063	Laikipia	F	09/03/2002	Gareth	Naivasha	Sent to Tanzania
P22032	Manyara	M	18/09/2002	Gareth	Jaga	
P22060	Zambezi II	M	31/12/2002	Gareth	N'akuru	
P20331	Nyasa	F	16/09/2003	Jos	Arusha	
P20578	Damara	F	18/12/2005	Mwaniki	Vuyu	
P20600	Monduli	M	07/01/2006	Mwaniki	Ruaha	Sent to Tanzania
P20700	Grumeti	F	03/01/2007	Mwaniki	Etna	Sent to Tanzania
P20978	Nyota	F	25/12/2009	Kingo	Vuyu	
P20171	-	F	04/11/2010	Kingo	Etna	
P21104	Nkosi	M	22/01/2011	Quinto	Ruaha	
P21233	Kisima	F	01/07/2012	Zambezi II	Nyasa	
H21425	Kasungu	M	01/10/2015	Zambezi II	Damara	Born at Howletts
P21642	Zuri	M	27/08/2016	Sammy	Ruaha	
H21470	Mizi	F	16/10/2016	Zambezi II	Salome	Born at Howletts
P21660	Rukuru	F	19/12/2016	Sammy	Nyasa	
P21754	Malewa	M	05/01/2018	Sammy	Kisima	
P21757	Mlimba	F	31/01/2018	Sammy	Solio	
P21769	Azizi	M	23/02/2018	Sammy	Nyota	

Table 2. List of African elephants born at Howletts, 1982 to Feb 2018.

Local ID	Name	Sex	DoB	Sire	Dam	Notes
H82030	Sabi	Female	25/05/1982	Bwana	Masa	
H85040	Swana	Female	02/07/1985	Bwana	Masa	
H94029	Osh	Male	24/05/1994	Yossi	Sara	Sired at Ramat Gan
H94040	Issa	Female	27/07/1994	Yossi	Lara	Sired at Ramat Gan
H97033	Jumar	Male	15/04/1997	Jums	Tami	
H97060	Umna	Female	18/07/1997	Jums	Swana	
H97061	Jasa	Male	06/08/1997	Jums	Masa	
H98083	Justa	Female	25/10/1998	Jums	Stavit	
H20511	Jara	Female	27/04/2005	Jums	Tami	
H20532	Janu	Male	07/07/2005	Jums	Swana	
H20630	Jama	Female	17/07/2006	Jums	Masa	
H20647	Juva	Male	24/09/2006	Jums	Stavit	
H20802	Uzuri	Female	17/02/2008	Jums	Tami	
H20861	Etana	Female	15/12/2008	Jums	Swana	
H20942	-	Female	21/06/2009	Jums	Umna	
H21035	Manzi	Female	18/05/2010	Jums	Justa	
H21101	Mchumba	Male	24/01/2011	Jums	Masa	
H21102	-	Female	25/01/2011	Jums	Masa	
H21104	Mchumba	Female	29/01/2011	Jums	Tami	
H21108	Juluka	Female	15/02/2011	Jums	Stavit	
H21127	Impi	Male	05/06/2011	Jums	Swana	
H21321	Mirembe	Female	07/06/2014	Jums	Tami	

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