**Analysis of a 131-year longitudinal dataset of the Eurasian otter *Lutra lutra* in Hong Kong: implications for conservation**

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Supplementary Table 1 Records of the Eurasian otter *Lutra lutra* in Hong Kong from 1890 to 20201

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Year | Source | Location2 | Habitat3 | | Month | | Time | Perceived otter abundance | | Remarks |
| 1 | 1898 | Newspaper | Central (HK Is.) | street near the seashore | | Dec | | 3–4 am | - | | - |
| 2 | 1899–1900 | Newspaper | unspecified | - | | - | | - | common | | - |
| 3 | 1899–1931 | Newspaper | Aberdeen (HK Is.) | - | | - | | - | - | | - |
| 4 | 1908 | Kershaw, 1908 | HK Is.; NT | - | | - | | - | common | | - |
| 5 | 1908 | Newspaper | unspecified | beach | | Aug | | night | - | | reported from an unspecified “neighbouring island” of Hong Kong |
| 6 | 1909 | Bunbury, 1909; 1913 | Ping Shan (NT) | - | | autumn | | night | common | | “*Ping Chau*” in Bunbury (1913) is believed to be a typographic error |
| 7 | before 1923 | Newspaper | Shing Mun (NT) | - | | - | | - | - | | reported by H. Green, Superintendent of the Botanical and Forestry Department |
| 8 | 1924 | Anon., 1924 | Sha Tin (NT) | stream | | - | | - | - | | - |
| 9 | 1930 | Peplow, 1930; Peplow & Barker, 1931 | Shing Mun River (NT); Lantau Is.; Cheung Chau Is. | stream (Lantau Is.), sea (Cheung Chau Is.) | | - | | - | - | | last record for Cheung Chau Is. |
| 10 | 1931 | Newspaper | Tsuen Wan Ka Loon Tsuen (NT) | road near the seashore | | - | | - | - | | - |
| 11 | 1932 | Newspaper | HK Is.; NT; Castle Peak (NT) | sea (Castle Peak) | | Aug (Castle Peak) | | - | present | | - |
| 12 | 1933 | Newspaper | HK Is.; Mai Po (NT) | oyster bed, mangrove (Mai Po) | | - | | night | present | |  |
| 13 | 1936 | Newspaper | NT | coastal areas | | - | | - | rare | | - |
| 14 | 1938 | Heywood, 1938 | unspecified | - | | - | | - | rare | | - |
| 15 | 1938 | Sowerby, 1938 | unspecified | - | | - | | - | - | | - |
| 16 | before the  1940s | Melville & Morton, 1983 | Mai Po (NT) | - | | - | | - | common4 | | - |
| 17 | 1947 | Newspaper | NT | - | | - | | - | rare | | - |
| 18 | 1947 | The Government of Hong Kong, 1948 | Lantau Is.; NT | - | | - | | - | rare | |  |
| 19 | 1948 | Newspaper | Stonecutters Is. | seashore | | Dec | | nightfall | - | | last record for Victoria Harbour |
| 20 | 1949 | The Government of Hong Kong, 1950 | Hong Kong except HK Is. | - | | - | | - | rare | |  |
| 21 | before the  1950s | Young & Melville, 1993 | Deep Bay (NT) | - | | - | | - | common4 | |  |
| 22 | 1951 | Herklots, 1951 | HK Is.; Lantau Is.; Deep Bay (NT) | - | | - | | - | rare | | - |
| 23 | 1953 | Newspaper | NT | - | | - | | - | - | | - |
| 24 | 1958 | Ye, 1958 | Stanley (HK Is.); Repulse Bay (HK Is.); Lantau Is.; Deep Bay (NT) | - | | - | | night | rare | |  |
| 25 | 1959 | Newspaper | Yuen Long (NT) | - | | - | | - | - | | - |
| 26 | 1960 | Marshall &  Phillips, 1965 | unspecified | - | | Feb | | - | - | | - |
| 27 | 1961 | Newspaper | Repulse Bay (HK Is.) | beach | | Jul | | 3:30 pm | - | | last record for HK Is. |
| 28 | 1961 | Webb, 1961 | Lantau Is. | | - | - | - | | rare | last record for Lantau Is. | |
| 29 | 1962 | Newspaper | Lamma Is. Picnic Bay (Sok Kwu Wan) | beach | | Nov | | afternoon | rare | | last record for Lamma Is. |
| 30 | 1963 | Gleason, 1963 | unspecified | - | | - | | - | rare | | - |
| 31 | 1965 | Marshall &  Phillips, 1965 | unspecified | - | | - | | - | absent | | - |
| 32 | 1967 | Marshall, 1967a; 1967b | unspecified | small inlets along the coast | | - | | - | rare | | - |
| 33 | 1968 | Hsu, 1968 | unspecified | - | | - | | - | absent | | - |
| 34 | 1971 | Burati & Pettelkay, 1971 | unspecified | - | | - | | - | rare | | - |
| 35 | 1974 | Tobin, 1975 | unspecified | - | | - | | - | absent | | - |
| 36 | 1975 | Hill et al., 1975 | unspecified | - | | - | | - | rare | | - |
| 37 | 1976 | Lance, 1976 | unspecified | - | | - | | - | absent | | - |
| 38 | 1979 | Morton, 1979 | Deep Bay (NT) | mangrove, mudflat | | - | | - | - | | - |
| 39 | 1980 | Melville, 1980 | Mai Po (NT) |  | | - | | - | absent4 | | - |
| 40 | 1981 | Hill & Phillips, 1981 | western coastal regions of the NT | - | | - | | night | rare | | - |
| 41 | 1983 | Morton & Morton, 1983 | unspecified | seashore | | - | | - | - | | - |
| 42 | 1983 | Melville & Morton, 1983 | Mai Po (NT) | - | | - | | - | absent4 | | - |
| 43 | 1983 | Catt, 1983 | unspecified | mangrove | | - | | - | rare | | - |
| 44 | 1983 | Parsons, 1984 | unspecified | - | | - | | - | rare | | - |
| 45 | 1983 | Newspaper | Mai Po (NT) |  | | - | | - | absent4 | | - |
| 46 | 1986 | Melville, 1989; Foster-Turley & Santiapillai, 1990 | Mai Po (NT) | - | | winter 1986 | | - | rare | | - |
| 47 | 1988 | Morris, 1988 | unspecified | | - | - | - | | - | - | |
| 48 | 1989 | Lee, 1989 | unspecified | - | | - | | - | - | | - |
| 49 | 1990 | Fyson, 1990 | unspecified | - | | - | | - | rare | | - |
| 50 | 1990 | Goodyer, 1992 | Mai Po (NT) | gei wai | | - | | - | rare | | - |
| 51 | 1990 | Reels, 2017; pers. comm., 2023 | Mai Po (NT) | gei wai | | Aug | | just before midnight | rare | | - |
| 52 | 1991 | Young & Melville, 1993 | Deep Bay (NT) | gei wai | | Jan | | - | - | | - |
| 53 | 1991 | Viney, 1991 | Mai Po (NT) | - | | - | | - | - | | - |
| 54 | 1992 | Ades & Reels, 1992 | unspecified | - | | - | | - | - | | - |
| 55 | 1992 | Sheean-Stone & Stone, 1992 | unspecified | - | | - | | - | absent | | - |
| 56 | 1993 | Fazey, 1993 | Tin Shui Wai (NT) | fishpond | | Mar | | 11:30 am | - | | - |
| 57 | 1993 | de Silva, 1993 | unspecified | - | | - | | - | absent | | - |
| 58 | 1994 | Leithwaite, 1994 | Mai Po (NT) | - | | Jan | | - | - | | - |
| 59 | 1994 | Young, 1994 | Mai Po (NT) | gei wai | | Jul | | - | - | | - |
| 60 | 1994 | Newspaper | Deep Bay (NT) | fishpond | | - | | - | - | |  |
| 61 | 1994 | Newspaper | Nam Sang Wai (NT) | fishpond | | - | | - | rare | | - |
| 62 | 1994 | Dudgeon & Corlett, 1994 | Mai Po (NT) | - | | - | | - | rare | | - |
| 63 | 1995 | Cha, 1995 | Mai Po (NT) | gei wai | | May | | - | - | | carcass found |
| 64 | 1995 | Newspaper | Mai Po (NT) | - | | - | | - | - | | - |
| 65 | 1996 | Woodward & Carey, 1996; Woodward, 2006 | Mai Po (NT) | - | | - | | - | - | | - |
| 66 | 1996 | Morton et al., 1996 | unspecified | mangrove, ponds and mudflats | | - | | - | - | | - |
| 67 | 1996 | Melisch et al., 1998 | Mai Po (NT) | - | | Apr | | - | - | | carcass found |
| 68 | 1997 | Melisch et al.,1998 | Mai Po (NT) | - | | Dec | | - | - | | - |
| 69 | 1997 | Newspaper | Mai Po (NT); Deep Bay (NT) | gei wai, mudflat, fishpond | | - | | - | rare | | - |
| 70 | 1997 | Hu, 1997 | unspecified | - | | - | | - | rare | | - |
| 71 | 1998 | de Silva, 2002 | unspecified | - | | - | | - | rare | | - |
| 72 | 1999 | Harper & Storey, 1999 | Mai Po (NT) | - | | - | | - | - | | - |
| 73 | 1999 | Ove Arup & Partners, 2013 | Lok Ma Chau (NT) | fishpond | | - | | 10–11 am | - | | - |
| 74 | 1999 | Stokes, 1999 | Mai Po (NT) | - | | - | | - | - | | - |
| 75 | 2000 | Chau et al., 2000 | unspecified | - | | - | | - | - | | - |
| 76 | 2000 | Wilson, 2000 | unspecified | - | | - | | - | rare | | - |
| 77 | 2000 | Yu, 2001 | Lok Ma Chau (NT) | fishpond | | Dec | | - | - | | - |
| 78 | 2000 | Binnie Black & Veatch & Kowloon-Canton Railway, 2002 | Mai Po (NT); San Tin (NT); Lok Ma Chau (NT) | fishpond (Lok Ma Chau) | | Dec (Lok Ma Chau) | | - | rare | |  |
| 79 | 2001 | Chan & Lee, 2002 | Mai Po (NT) | mangrove | | Feb | | - | - | | - |
| 80 | 2000–2003 | Pei, 2001; Pei et al., 2002; Suen, 2003 | Mai Po (NT); Lok Ma Chau (NT) | fishpond, gei wai | | - | | 9 pm–7:30 am (Mai Po) | rare | | a total of 14 records (Mai Po) |
| 81 | 2002 | Fellowes et al., 2002 | unspecified | - | | - | | - | rare | | - |
| 82 | 2002–2006 | Shek, 2003; Shek, 2006; Shek et al., 2007 | Mai Po (NT); San Tin (NT); Lok Ma Chau (NT) | - | | - | | - | rare | | - |
| 83 | 2003 | Levine, 2003 | Mai Po (NT) | marsh | | - | | - | - | | - |
| 84 | 2003 | Wang, 2003 | unspecified | - | | - | | - | - | | - |
| 85 | 2004 | Ove Arup & Partners, 2013 | Hoo Hok Wai (NT) | marsh | | Feb | | early morning | - | | - |
| 86 | 2005 | Agriculture, Fisheries and Conservation Department, 2005 | Mai Po (NT); Deep Bay (NT) | - | |  | | - | rare | | - |
| 87 | 2006 | Asia Ecological Consultants, 2006 | Lok Ma Chau (NT); Mai Po San Tsuen (NT) | fishpond, gei wai, river | | - | | - | rare | | - |
| 88 | 2006 | WWF Hong Kong, 2006 | Mai Po (NT) | - | | - | | - | - | | - |
| 89 | 2008–2009 | Ove Arup & Partners, 2013 | Lok Ma Chau (NT) | fishpond | | winter | | 8–9 pm | - | | - |
| 90 | 2009 | Newspaper | Lok Ma Chau (NT) | - | | - | | - | rare | | - |
| 91 | 2009 | Ove Arup & Partners, 2010 | Sandy Ridge (NT) | fishpond | | Jan | | - | rare | | - |
| 92 | 2009 | Wen et al., 2009 | Mai Po (NT); Deep Bay (NT) | gei wai | | - | | - | rare | | - |
| 93 | 2009 | Ove Arup & Partners, 2013 | Lok Ma Chau (NT) | reed marsh | | Oct | | - | - | | - |
| 94 | 2010 | Ove Arup & Partners, 2013 | Lok Ma Chau (NT) | river | | Jan | | - | - | | - |
| 95 | 2010 | Chan & Cheng, 2010 | Tam Kon Chau (NT); Nam Sang Wai (NT) | river (Tam Kon Chau); fishpond (Nam Sang Wai) | | Feb (Tam Kon Chau) | | 9:30 am (Tam Kon Chau) | rare | | - |
| 96 | 2010–2018 | McMillan et al., 2019 | Mai Po (NT); San Tin (NT); Lok Ma Chau (NT); Fung Lok Wai (NT); Nam Sang Wai (NT); Kam Tin (NT); Tai Sang Wai (NT); Tam Kon Chau (NT); Ma Tso Lung (NT); Lo Wu (NT); Ho Sheung Heung (NT); Long Valley (NT); Kwu Tung (NT); Tap Shek Kok (NT) | - | | - | | - | rare | | only records from 2010 to 2018 were extracted as the historical records covered a broad period of time |
| 97 | 2011 | Nam Sang Wai Development Company, 2011 | Nam Sang Wai (NT); Deep Bay (NT) | fishpond (Nam Sang Wai) | | - | | - | rare | | - |
| 98 | 2013 | Newspaper | Hoo Hok Wai (NT) | fishpond | | - | | - | rare | | - |
| 99 | 2013 | Kadoorie Farm and Botanic Garden, 2018 | Lok Ma Chau (NT) | wetland | | Mar | | - | rare | | carcass found |
| 100 | 2014 | Agriculture, Fisheries and Conservation Department, 2014 | Deep Bay (NT) | - | | - | | - | rare | | - |
| 101 | 2015 | Newspaper | Mai Po (NT) | - | | - | | - | rare | | - |
| 102 | 2016 | Newspaper | Mai Po (NT) | gei wai | | Mar | | early morning | rare | | - |
| 103 | 2016 | Newspaper | Mai Po (NT) | - | | Nov–Dec | | 10 pm (Nov) | rare | | - |
| 104 | 2018 | Newspaper | Mai Po (NT) | - | | - | | - | rare | | - |
| 105 | 2019 | Yoxon & Yoxon, 2019 | unspecified | - | | - | | - | - | | - |
| 106 | 2019 | Newspaper | Mai Po (NT) | - | | - | | - | rare | | - |
| 107 | 2019 | AECOM, 2021 | Lok Ma Chau (NT); Deep Bay (NT) | fishpond, vegetated tunnel | | Feb–Mar | | one at 9:30 am, six at night (in Mar in Lok Ma Chau) | - | | - |
| 108 | 2020 | Hong Kong Chronicles Institute, 2020 | unspecified | - | | - | | - | rare | | - |

1 Publications merely citing published information are not included (e.g. Reels, 1996; multiple Annual Reports of Hong Kong Government)

2 HK Is. = Hong Kong Island; NT = New Territories; Is. = island.

3 Gei Wai is the local term for intertidal shrimp ponds carved out from mangrove area.

4 Record only reporting the abundance of a specific location is not included in the assessment of perceived otter abundance in Hong Kong.

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