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Supplementary Information for

Haiti's biodiversity threatened by nearly complete loss of primary forest

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Supplementary Information Text

Biodiversity surveys

Below we list the dates and locations where surveys were made and the species observed (numbers of individuals in parentheses). Species of amphibians and reptiles found only in Haiti (endemic to Haiti) are in bold, new species are indicated by 'sp.', and an asterisk indicates those endemic to a single mountain. This work was approved by Temple University IACUC (4484).

Haitian mountains with primary forest. Morne Tête Boeuf (M1, 11.6 km^2); 2–3 July 2012; 1176 m; 18.33716, -73.51073. All species: 16 total, 9 endemic to Haiti, 2 endemic to the mountain. Amphibians: *Boana heilprini* (1), *Eleutherodactylus abbotti* (8), ***Eleutherodactylus apostates*** (12), *Eleutherodactylus audanti* (7), ***Eleutherodactylus eunaster*** (1), ***Eleutherodactylus glaphycompus*** (25), *Eleutherodactylus heminota* (1), ***Eleutherodactylus lamprotes*** (1), ***Eleutherodactylus* sp. 'nem'*** (4), *Eleutherodactylus nortoni* (1), ***Eleutherodactylus* sp. 'not'*** (1), ***Eleutherodactylus* sp. 'plo'** (3), *Osteopilus dominicensis* (1). Reptiles: ***Anolis coelestinus*** (1), ***Anolis monticola*** (3), *Anolis* sp. 'not' (4).

Morne Grand Bois (M3, 2.1 km^2); 26–27 July 2011, 6–7 June 2013; 1023–1208 m; 18.37397, -74.29509. All species: 27 total, 17 endemic to Haiti, 2 endemic to the mountain. Amphibians: *Boana heilprini* (1), ***Eleutherodactylus apostates*** (2), ***Eleutherodactylus bakeri*** (1), ***Eleutherodactylus brevirostris*** (2) ***Eleutherodactylus counouspeus*** (4) ***Eleutherodactylus eunaster*** (3), ***Eleutherodactylus glandulifer*** (9), ***Eleutherodactylus glaphycompus*** (2), ***Eleutherodactylus* sp. 'gra'*** (3), ***Eleutherodactylus* sp. 'gry'*** (3), *Eleutherodactylus heminota* (1), *Eleutherodactylus inoptatus* (2), ***Eleutherodactylus* sp. 'mel'** (11), *Eleutherodactylus nortoni* (4), ***Eleutherodactylus oxyrhynchus*** (6), ***Eleutherodactylus paulsoni*** (2), ***Eleutherodactylus semipalmatus*** (5), *Osteopilus vastus* (1). Reptiles: ***Anolis coelestinus*** (14), ***Anolis cybotes*** (3), *Anolis distichus* (1), ***Anolis dolichocephalus*** (6), *Anolis* sp. 'not' (1), *Anolis ricordi* (1), ***Anolis rupinae*** (5), *Celestus costatus* (1), *Celestus stenurus* (1).

Morne Bois Pangnol (M6, 16.8 km^2); 19–20 June 2012; 1170 m; 18.41869, -73.77512. All species: 26 total, 11 endemic to Haiti, 3 endemic to the mountain. Amphibians: *Eleutherodactylus abbotti* (1), ***Eleutherodactylus apostates*** (37), *Eleutherodactylus audanti* (2), ***Eleutherodactylus eunaster*** (6), ***Eleutherodactylus glaphycompus*** (1), *Eleutherodactylus heminota* (1), *Eleutherodactylus inoptatus* (3), ***Eleutherodactylus lamprotes*** (1), *Eleutherodactylus nortoni* (1), ***Eleutherodactylus parapelates*** (1), ***Eleutherodactylus* sp. 'phy'*** (16), *Eleutherodactylus pictissimus* (1), ***Eleutherodactylus* sp. 'plo'** (16), ***Eleutherodactylus* sp. 'ros'*** (2), ***Eleutherodactylus* sp. 'seu'*** (24), *Osteopilus dominicensis* (11), *Osteopilus pulchrilineatus* (7). Reptiles: *Anolis barbouri* (1), ***Anolis coelestinus*** (7), ***Anolis cybotes*** (2), *Anolis* sp. 'not' (3), *Anolis ricordi* (1), *Anolis semilineatus* (1), *Celestus costatus* (1), *Celestus sepsoides* (1), *Ialtris haetianus* (1).

Morne Deux Mamelles (M8, 7.3 km^2); 27–28 July 2011; 1170 m; 18.44637, -74.24671. All species: 17 total, 11 endemic to Haiti, 0 endemic to the mountain. Amphibians: *Eleutherodactylus abbotti* (1), ***Eleutherodactylus apostates*** (8), *Eleutherodactylus audanti* (4), ***Eleutherodactylus diplasius*** (1), ***Eleutherodactylus eunaster*** (10), ***Eleutherodactylus glandulifer*** (3) ***Eleutherodactylus glaphycompus*** (1), *Eleutherodactylus inoptatus* (3), ***Eleutherodactylus lamprotes*** (8), ***Eleutherodactylus* sp. 'mel'** (8), *Eleutherodactylus nortoni* (7), ***Eleutherodactylus oxyrhynchus*** (10), *Osteopilus dominicensis* (1), *Osteopilus vastus* (1). Reptiles: ***Anolis coelestinus*** (2), ***Anolis dolichocephalus*** (6), ***Anolis monticola*** (2).

Montagnes Macaya (M7, 220 km^2). Five locations were surveyed: Morne Formon (MF; 3–7 October 2010; 1050–2000 m; 18.35575, -74.01937), Morne Desbarrières (MD; 24–25 July 2011; 1623 m; 18.41756, -74.09356), Morne Lézard (ML; 25–26 July 2011, 8–10 June 2013, 19–20 June 2015; 1790–1824 m; 18.38296, -74.09496), Morne Bellevue (MB; 8–9 June 2013; 1464 m; 18.38779, -74.16620), and Morne Verrette (MV; 20–21 June 2015; 1369 m; 18.39599, -73.96903). All species: 57 total, 35 endemic to Haiti, 11 endemic to the mountain. Amphibians: *Boana heilprini* (MV 1, ES), *Eleutherodactylus abbotti* (ES), ***Eleutherodactylus* sp. 'ade'*** (ES), ***Eleutherodactylus amadeus*** (MF 30, MD 7, ML 60, MV 3, ES), ***Eleutherodactylus aporostegus*** (MF 6, ES), ***Eleutherodactylus apostates*** (MF 32, MD 4, MB 8, MV 3, ES), *Eleutherodactylus audanti* (MD 10, MB 4, ES),

Eleutherodactylus bakeri (MF 41, MD 18, ML 39, MB 10, ES), ***Eleutherodactylus brevirostris*** (MF 9, MD 1, ML 6, MB 4, ES), ***Eleutherodactylus chlorophenax*** (ES), ***Eleutherodactylus* sp. 'col'*** (ML 10), ***Eleutherodactylus corona**** (MF 1, MD 7, ML 2, ES), ***Eleutherodactylus counouspeus*** (ES), ***Eleutherodactylus diplasius*** (ES), ***Eleutherodactylus dolomedes**** (MF 3, ES), ***Eleutherodactylus eunaster*** (MF 1, MD 8, ML 4, MB 4, MV 12, ES), ***Eleutherodactylus* sp. 'for'*** (ES), ***Eleutherodactylus glandulifer*** (MD 9, ML 13, MB 6, ES), ***Eleutherodactylus glaphycompus*** (MF 4, MD 1, MV 1, ES), *Eleutherodactylus heminota* (MF 2, ES), *Eleutherodactylus inoptatus* (ES), ***Eleutherodactylus lamprotes*** (MB 3, ES), ***Eleutherodactylus* sp. 'mac'*** (MV 1), *Eleutherodactylus nortoni* (ES), ***Eleutherodactylus* sp. 'nym'*** (MV 11), ***Eleutherodactylus oxyrhynchus*** (MF 18, MB 1, ES), ***Eleutherodactylus parapelates*** (MF 8, ES), ***Eleutherodactylus* sp. 'phy'** (MV 1), ***Eleutherodactylus* sp. 'rub'*** (ML 2), ***Eleutherodactylus semipalmatus*** (ES), ***Eleutherodactylus* sp. 'seu'** (ML 1), ***Eleutherodactylus thorectes**** (MF 12, ML 7, ES), ***Eleutherodactylus ventrilineatus**** (MF 12, ES), ***Eleutherodactylus wetmorei*** (MB 1), *Osteopilus dominicensis* (MF 1, ES), *Osteopilus pulchrilineatus* (MF 1, ES), *Osteopilus vastus* (ES). Reptiles: *Anolis barbouri* (ES), ***Anolis coelestinus*** (MF 5, MD 2, MV 1, ES), ***Anolis cybotes*** (MD 2, ML 1, ES), ***Anolis darlingtoni**** (ML 1, MV 1, ES), *Anolis distichus* (ES), ***Anolis dolichocephalus*** (MF 1, MV 3, ES), ***Anolis monticola*** (MV 2, ES), *Anolis* sp. 'not' (*Anolis* sp. 'not' (1), *Anolis ricordi* (MF 1, MB 1, MV 1, ES), ***Anolis rupinae*** (ES), *Anolis semilineatus* (MV 1, ES), *Celestus costatus* (MF 1, ES), *Celestus sepsoides* (ES), *Celestus stenurus* (ES), *Chilabothrus striatus* (ES), *Hypsirhynchus parvifrons* (ML 1, ES), *Ialtris haetianus* (MF 3, ES), ***Leiocephalus melanochlorus*** (ES), *Pholidocelis taeniurus* (ES), *Uromacer catesbyi* (MF 1, ES).

Massif de La Selle (M47, 1070 km^2) is part of a single large land mass (>1000 m elevation, >1 km^2) that extends into the Dominican Republic, where it is called the Sierra de Baoruco. Nonetheless, there is a physiographic depression (~1600 m) near the border of the two countries. Likewise, there are species found only in one or the other range, indicating that they are areas of endemism. Here, we consider only the Massif de La Selle (i.e., the Haitian portion of the land mass), and classify endemic species of M47 as those occurring in that range, including Dominican portions of that land mass. Four locations

were surveyed: Morne D'Enfer (MDE; 21–22 November 2011; 1418–1446 m; 18.33069, -72.37161), Morne La Visite (MLV; 18–19 November 2009; 1630 m, 18.30795, -72.25389; 1452 m, 18.30854, -72.72029; 1918 m, 18.34251, -72.28750; 2021 m, 18.34737, -72.28350); Peak La Selle (PLS; 20–21 November 2011; 1740–1927 m; 18.32887, -72.02184), and Morne Bas Gougeon (reduced effort) (MBG; 22–23 June 2015; 1274–1400 m; 18.42611, -72.45532). All species: 50 total, 9 endemic to Haiti, 9 endemic to the mountain. Amphibians: *Boana heilprini* (MBG 5, ES), *Eleutherodactylus abbotti* (MLV 8, MBG 11, ES), *Eleutherodactylus aporostegus* (ES), *Eleutherodactylus armstrongi* (ES), *Eleutherodactylus audanti* (MDE 9, MLV 23, PLS 33, MBG 1, ES), *Eleutherodactylus ceraemerus* (MLV 3, ES), ***Eleutherodactylus darlingtoni**** (ES), *Eleutherodactylus fowleri* (PLS 1, ES), *Eleutherodactylus furcyensis** (MLV 12, MBG 4, ES), ***Eleutherodactylus glanduliferoides**** (ES), *Eleutherodactylus heminota* (ES), *Eleutherodactylus hypostenor* (ES), *Eleutherodactylus inoptatus* (MDE 4, MLV 7, ES), *Eleutherodactylus jugans** (MLV 1, ES), *Eleutherodactylus* sp. 'las'* (ES), *Eleutherodactylus leoncei** (PLS 9, ES), *Eleutherodactylus nortoni* (ES), *Eleutherodactylus* sp. 'not'* (MLV 3, PLS 3, ES), ***Eleutherodactylus paulsoni*** (ES), ***Eleutherodactylus semipalmatus*** (ES), *Osteopilus dominicensis* (MLV 27, ES), *Osteopilus pulchrilineatus* (ES), *Osteopilus vastus* (MLV 1, ES). Reptiles: *Anolis aliniger* (MDE 1, MLV 1, ES), *Anolis apletolepis** (ES), *Anolis armouri* (MDE 3, MLV 15, PLS 3, ES), *Anolis bahorucoensis* (ES), *Anolis barbouri* (MDE 1, ES), *Anolis coelestinus* (MDE 1, ES), *Anolis cybotes* (MLV 20, ES), *Anolis distichus* (MDE 1, ES), *Anolis eladioi** (ES), ***Anolis hendersoni*** (MLV 12, ES), *Anolis* sp. 'his' (PLS 3), *Anolis ricordi* (ES), ***Anolis southerlandi**** (MDE 22, ES), *Anolis semilineatus* (MDE 16, MBG 5, ES), *Celestus costatus* (MDE 1, MLV 19, PLS 5, ES), ***Celestus haetianus**** (MDE 1, MLV 12, ES), ***Celestus macrotus**** (ES), *Celestus sepsoides* (MLV 4, ES), *Celestus stenurus* (ES), *Celestus surdus** (PLS 18, ES), *Chilabothrus striatus* (ES), *Hypsirhynchus ferox* (ES), *Hypsirhynchus parvifrons* (MLV 1, PLS 1, ES), *Ialtris haetianus* (ES), ***Leiocephalus melanochlorus*** (ES), *Pholidocelis taeniurus* (ES), *Uromacer catesbyi* (ES).

Haitian mountains without primary forest. Morne Éloi (M14, 23.3 km^2); 21–22 June 2015; 1200 m; 18.34127, -72.83284. All species: 11 total, 2 endemic to Haiti, 1 endemic

to the mountain. Amphibians: *Eleutherodactylus abbotti* (7), *Eleutherodactylus apantheatus* (4), *Eleutherodactylus armstrongi* (2) *Eleutherodactylus ceraemerus* (11) *Eleutherodactylus furcyensis* (2), ***Eleutherodactylus glaphycompus*** (2), *Eleutherodactylus inoptatus* (1), ***Eleutherodactylus* sp. 'pyr'*** (1). Reptiles: *Anolis coelestinus* (2), *Anolis* sp. 'not' (2), *Ialtris haetianus* (1).

Chaîne de Matheux (M20, 152 km^2); 5 April 2011; 1154 m, 18.89327, -72.55938; 1202 m, 18.90979, -72.57879. All species: 11 total, 0 endemic to Haiti, 0 endemic to the mountain. Amphibians: none. Reptiles: *Anolis* sp. 'his' (5), *Anolis semilineatus* (1), *Hypsirhynchus parvifrons* (1).

Morne Basile (M32, 15.4 km^2); 22–23 November 2011; 1424 m; 19.39007, -72.44482. All species: 4 total, 0 endemic to Haiti, 0 endemic to the mountain. Amphibians: none. Reptiles: *Anolis aliniger* (3), *Anolis distichus* (1), *Anolis* sp. 'his' (6), *Anolis semilineatus* (5).

Morne Boeuf (M46, 86.1 km^2); 23–24 November 2011; 1760–1780 m; 19.07239, -72.25021. All species: 3 total, 0 endemic to Haiti, 0 endemic to the mountain. Amphibians: *Osteopilus dominicensis* (2). Reptiles: *Anolis* sp. 'his' (4), *Celestus costatus* (7).

Mountains in the Dominican Republic with primary forest (bordering Haiti). Sierra de Bahoruco (717 km^2). All species: 45 total, 11 endemic to the mountain. Amphibians: *Eleutherodactylus abbotti*, *Eleutherodactylus armstrongi*, *Eleutherodactylus audanti, Eleutherodactylus ceraemerus*, *Eleutherodactylus* sp. 'fol'*, *Eleutherodactylus fowleri*, *Eleutherodactylus furcyensis*, *Eleutherodactylus heminota*, *Eleutherodactylus hypostenor**, *Eleutherodactylus inoptatus, Eleutherodactylus jugans, Eleutherodactylus leoncei, Eleutherodactylus ligiae**, *Eleutherodactylus neodreptus**, *Eleutherodactylus nortoni, Eleutherodactylus* sp. 'not', *Eleutherodactylus rufifemoralis**, *Osteopilus dominicensis*, *Osteopilus vastus*. Reptiles: *Amphisbaena manni*, *Anolis aliniger, Anolis apletolepis, Anolis barahonae*, Anolis barbouri, Anolis cybotes, Anolis distichus, Anolis divius*, Anolis eladioi, Anolis prasinorius, Anolis semilineatus, Anolis sheplani*, Anolis viridius*, Celestus costatus, Celestus mylicus*, Celestus stenurus, Celestus surdus, Chilabothrus striatus, Hypsirhynchus ferox, Hypsirhynchus parvifrons, Ialtris haetianus,*

Pholidoscelis taeniurus, Sphaerodactylus armstrongi, Sphaerodactylus hypsinephes, Uromacer catesbyi, Uromacer oxyrhnchus.*

Sierra de Neiba (498 km^2). All species: 30 total, 7 endemic to the mountain. Amphibians: *Eleutherodactylus abbotti*, *Eleutherodactylus* sp. 'bor', *Eleutherodactylus ceraemerus*, *Eleutherodactylus* sp. 'flo'*, *Eleutherodactylus neiba**, *Eleutherodactylus notidodes**, *Eleutherodactylus parabates**, *Eleutherodactylus* sp. 'rae'*, *Boana heilprini*, *Osteopilus dominicensis*, *Osteopilus pulchrilineatus*, *Osteopilus vastus*. Reptiles: *Amphisbaena manni*, *Anolis aliniger, Anolis barbouri, Anolis distichus, Anolis* sp. 'his', *Anolis placidus*, Anolis ricordii, Anolis semilineatus, Anolis* sp. 'tra'*, *Celestus costatus, Celestus stenurus, Chilabothrus striatus, Hypsirhynchus ferox, Hypsirhynchus parvifrons, Pholidoscelis taeniura, Sphaerodactylus darlingtoni, Uromacer catesbyi, Uromacer oxyrhnchus.*

Cordillera Central (4,239 km^2). All species: 44 total, 18 endemic to the mountain. Amphibians: *Boana heilprini*, *Eleutherodactylus abbotti, Eleutherodactylus* sp. 'acr'*, *Eleutherodactylus auriculatoides*, Eleutherodactylus* sp. 'bor', *Eleutherodactylus* sp. 'cen'*, *Eleutherodactylus haitianus**, *Eleutherodactylus melatrigonum**, *Eleutherodactylus minutus*, Eleutherodactylus montanus*, Eleutherodactylus patricae**, *Eleutherodactylus pituinus*, Eleutherodactylus* sp. 'ran'*, *Eleutherodactylus rucillensis**, *Eleutherodactylus schmidti, Eleutherodactylus sommeri, Osteopilus dominicensis*, *Osteopilus pulchrilineatus*, *Osteopilus vastus*. Reptiles: *Amphisbaena manni*, *Anolis aliniger, Anolis baleatus, Anolis barbouri, Anolis chlorocyanus, Anolis christophei, Anolis distichus, Anolis etheridgei*, Anolis fowleri*, Anolis* sp. 'his', *Anolis insolitus*, Anolis marcanoi*, Anolis ricordii, Anolis semilineatus, Anolis shrevei*, Celestus costatus, Celestus darlingtoni*, Celestus marcanoi*, Celestus stenurus, Chilabothrus striatus, Hypsirhynchus ferox, Hypsirhynchus parvifrons, Pholidoscelis taeniura, Uromacer catesbyi, Uromacer oxyrhnchus.*

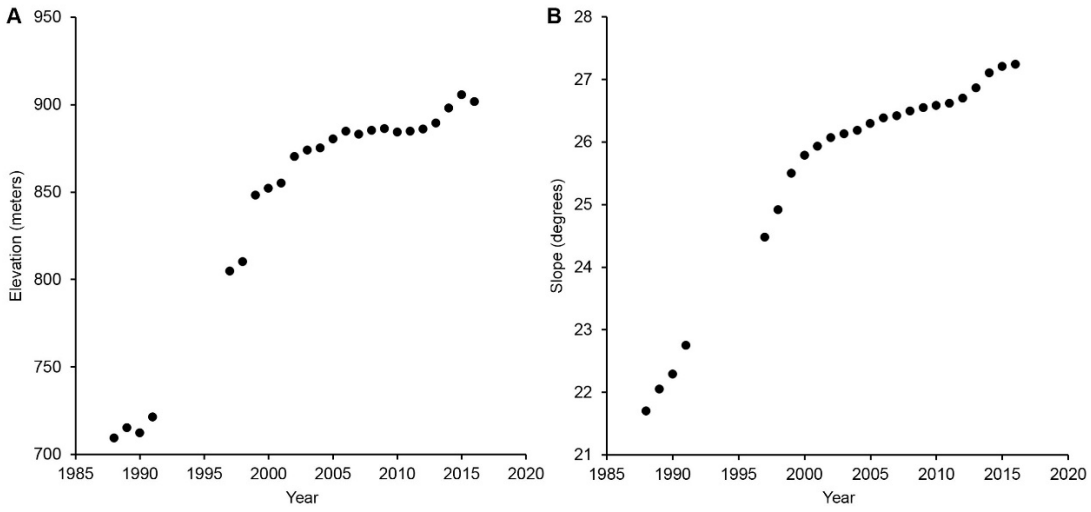

Fig. S1. Changes in surviving primary forest through time. (A) Mean elevation and (B) mean slope of primary forest at different years in Haiti.

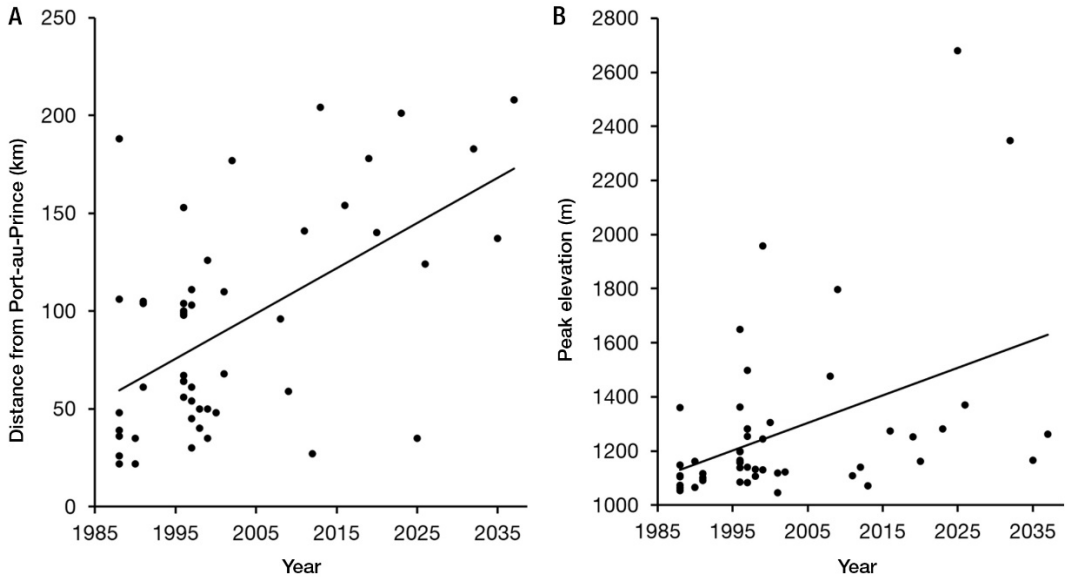

Fig. S2. Two factors associated with loss of primary forest. Year that each of the 50 largest mountains in Haiti (>1 km in elevation, >1 km^2 in area) lost all (>99.5%) primary forest, plotted against (A) distance from Port-au-Prince (P = 0.0001, t = 4.636, df = 48, r = 0.56) and (B) elevation of the peak elevation (P = 0.0022, t = 3.236, df = 48, r = 0.42).

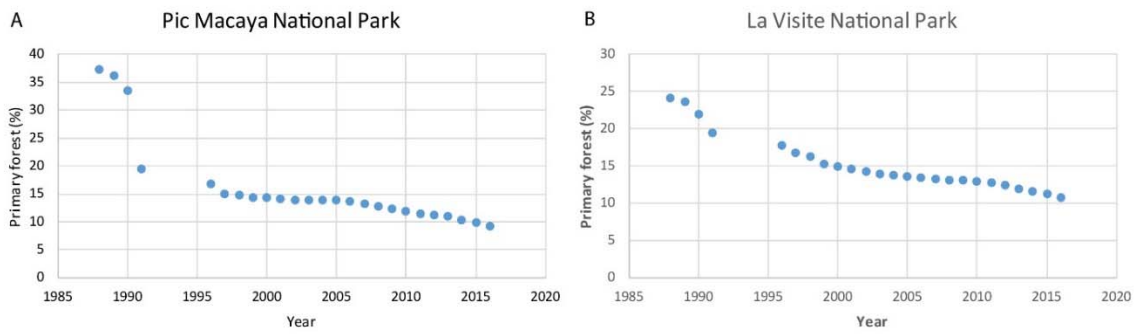

Fig. S3. Decline in the proportion of primary forest over time in protected areas. Percent primary forest is shown for the two original national parks of Haiti, Pic Macaya National Park (A) and La Visite National Park (B), established in 1983–84 (see Fig. 1B for locations). The 1991 data are anomalous because of clouds and shadows. The pre-2000 (1988–1997 for Pic Macaya and 1988–1999 for La Visite) rates of primary forest loss were 2.5% and 0.83% per year. The post-2000 (last 5 years) rates of forest loss were 1.69% and 0.4% per year, respectively.

Table S1. Out-of-bag error matrix for the Random Forest model used to predict the three classes with the medoid composite imagery.

		Observed			
		Closed Forest	Open Forest	Non-forest	Commission
Predicted	Closed Forest	57	3	0	0.050
	Open Forest	6	111	15	0.159
	Nonforest	0	20	148	0.119
	Omission	0.095	0.172	0.092	

Table S2. Size and location of all 50 mountains greater than 1000 m in elevation and greater than 1 km^2 in area. The "year bald" is the year that primary forest disappeared from the mountain, defined as dropping below a near-zero threshold of 0.5% of total land area of the mountain (see Table S3). Land area is that above 1000 m. See Methods for explanation of how dates were estimated.

Mountain	Name	Land area (ha)	Peak Elev. (m)	Latitude	Longitude	Year bald
M1	Morne Tête Boeuf	1159	1370	18.33757	-73.49343	~2026
M2	Morne Tinglade	106	1071	18.36400	-74.25855	2013
M3	Morne Grand Bois	207	1262	18.37339	-74.30159	~2037
M4	Morne Ca Tino Ouest	129	1252	18.42521	-74.02785	~2019
M5	Morne Ca Tino Est	140	1122	18.42989	-74.01006	2002
M6	Morne Bois Pangnol	1684	1273	18.42164	-73.79647	2016
M7	Montagnes Macaya	21983	2347	18.38830	-74.04267	~2032
M8	Morne Deux Mamelles	728	1281	18.44946	-74.24198	~2023
M9	Morne Rampe des Lions	259	1105	18.48210	-74.11294	1986–1988
M10	Morne Masure	137	1141	18.29792	-72.37266	2012
M11	Platon Besace	300	1091	18.30122	-72.86729	1991
M12	Morne Chéridant	1799	1305	18.32141	-72.74388	2000
M13	Morne Lucas	114	1086	18.36105	-72.94380	1996
M14	Morne Éloi	2326	1363	18.33115	-72.82172	1996
M15	Morne Bellevue	456	1198	18.35924	-72.90647	1996
M16	Morne Soliette	180	1107	18.43048	-71.87913	1998
M17	Morne Prospère	138	1108	18.48361	-72.13671	1986–1988
M18	Morne Corail	536	1245	18.84645	-72.42408	1999
M19	Morne Découvert	179	1133	18.88209	-72.45109	1998
M20	Morne de Jardins	15203	1498	18.92559	-72.49872	1997
M21	Morne Décayette	296	1064	18.65902	-71.98873	1986–1988
M22	Morne Trou D'Eau	965	1361	18.71056	-72.04796	1986–1988

M23	Morne Leroux	163	1162	18.72464	-72.25683	1990
M24	Morne Cafétanal	7977	1650	18.77746	-71.78920	1996
M25	Morne Beau	103	1066	18.84499	-72.25186	1990
M26	Morne Tonnerre	409	1148	18.83680	-72.00584	1986–1988
M27	Morne Mathurin	401	1119	19.15417	-72.35236	2001
M28	Morne Bois d'Orme	441	1200	19.18433	-71.67377	1996
M29	Morne Bourrouque	135	1138	19.19510	-71.69952	1996
M30	Morne Plateforme	294	1165	19.28665	-71.85333	1996
M31	Morne Bois Gamelle	163	1158	19.36985	-71.87717	1996
M32	Morne Basile	1543	1477	19.39460	-72.45084	2008
M33	Morne Salnave	126	1141	19.43611	-71.87580	1997
M34	Morne Bois Neuf	380	1083	19.46821	-72.25313	1997
M35	Roche Pilon	114	1117	19.47784	-72.17592	1991
M36	Morne Espagnol	149	1074	19.49621	-72.33245	1986–1988
M37	Morne Marmelade	117	1101	19.50058	-72.37066	1991
M38	Morne Terre Rouge	112	1045	19.52840	-72.43993	2001
M39	Morne Belance	195	1130	19.64524	-72.61792	1999
M40	Morne Dara	263	1165	19.75248	-72.60734	~2035
M41	Morne Congo	134	1109	19.77736	-72.64712	2011
M42	Morne Le Borgne	284	1162	19.79485	-72.50372	~2020
M43	Chaîne Du Haut Piton	189	1158	19.85684	-72.75563	1996
M44	Morne Chalante	3939	1281	19.01465	-72.62292	1997
M45	Morne Zoranger	577	1255	19.03371	-72.31338	1997
M46	Morne Boeuf	8611	1797	19.06066	-72.22180	2009
M47	Massif de La Selle	106987	2679	18.35736	-72.06839	~2025
M48	Chaîne Du Trou D'Eau	13708	1958	18.68775	-71.87193	1999
M49	Morne Cam Ilé	106	1053	18.77433	-72.32433	1986–1988
M50	Montagnes Terribles	1357	1281	18.81777	-72.32940	1997

Table S3. Primary forest cover through time on the 50 largest mountains in Haiti. See Table S2 for more information on each mountain.

Mountain	Year	Area of primary forest (ha)	Primary forest as % of land area
M1	1988	178.38	15.39%
M1	1989	177.57	15.32%
M1	1990	174.42	15.04%
M1	1991	160.47	13.84%
M1	1996	102.78	8.86%
M1	1997	54.54	4.70%
M1	1998	51.39	4.43%
M1	1999	51.12	4.41%
M1	2000	35.91	3.10%
M1	2001	27.45	2.37%
M1	2002	19.62	1.69%
M1	2003	18.36	1.58%
M1	2004	17.73	1.53%
M1	2005	16.56	1.43%
M1	2006	16.38	1.41%
M1	2007	16.11	1.39%
M1	2008	15.21	1.31%
M1	2009	15.12	1.30%
M1	2010	15.12	1.30%
M1	2011	14.22	1.23%
M1	2012	13.14	1.13%
M1	2013	12.51	1.08%
M1	2014	12.42	1.07%
M1	2015	11.88	1.02%
M1	2016	10.89	0.94%
M2	1988	22.59	21.38%

M2	1989	21.78	20.61%
M2	1990	16.65	15.76%
M2	1991	12.42	11.75%
M2	1996	10.98	10.39%
M2	1997	9.81	9.28%
M2	1998	9.63	9.11%
M2	1999	5.85	5.54%
M2	2000	5.85	5.54%
M2	2001	5.85	5.54%
M2	2002	5.31	5.03%
M2	2003	5.31	5.03%
M2	2004	4.5	4.26%
M2	2005	4.5	4.26%
M2	2006	3.15	2.98%
M2	2007	3.15	2.98%
M2	2008	3.15	2.98%
M2	2009	3.15	2.98%
M2	2010	3.06	2.90%
M2	2011	2.97	2.81%
M2	2012	2.07	1.96%
M2	2013	0.45	0.43%
M2	2014	0.45	0.43%
M2	2015	0	0.00%
M2	2016	0	0.00%
M3	1988	56.07	27.13%
M3	1989	52.38	25.34%
M3	1990	42.3	20.46%
M3	1991	29.25	14.15%
M3	1996	26.55	12.84%
M3	1997	23.67	11.45%
M3	1998	23.04	11.15%

M3	1999	22.95	11.10%
M3	2000	22.59	10.93%
M3	2001	22.59	10.93%
M3	2002	22.59	10.93%
M3	2003	22.5	10.89%
M3	2004	22.5	10.89%
M3	2005	22.41	10.84%
M3	2006	22.41	10.84%
M3	2007	22.41	10.84%
M3	2008	22.41	10.84%
M3	2009	21.24	10.28%
M3	2010	21.15	10.23%
M3	2011	20.88	10.10%
M3	2012	20.88	10.10%
M3	2013	19.89	9.62%
M3	2014	19.8	9.58%
M3	2015	18.63	9.01%
M3	2016	17.46	8.45%
M4	1988	15.66	12.12%
M4	1989	15.57	12.05%
M4	1990	15.57	12.05%
M4	1991	14.85	11.49%
M4	1996	9	6.96%
M4	1997	2.16	1.67%
M4	1998	1.98	1.53%
M4	1999	1.98	1.53%
M4	2000	1.53	1.18%
M4	2001	1.53	1.18%
M4	2002	1.53	1.18%
M4	2003	1.53	1.18%
M4	2004	1.53	1.18%

M4	2005	1.53	1.18%
M4	2006	1.53	1.18%
M4	2007	1.53	1.18%
M4	2008	1.53	1.18%
M4	2009	1.53	1.18%
M4	2010	1.53	1.18%
M4	2011	1.53	1.18%
M4	2012	1.53	1.18%
M4	2013	1.44	1.11%
M4	2014	1.35	1.04%
M4	2015	1.17	0.91%
M4	2016	0.99	0.77%
M5	1988	4.95	3.54%
M5	1989	4.95	3.54%
M5	1990	4.68	3.34%
M5	1991	2.61	1.86%
M5	1996	1.26	0.90%
M5	1997	0.81	0.58%
M5	1998	0.72	0.51%
M5	1999	0.72	0.51%
M5	2000	0.72	0.51%
M5	2001	0.72	0.51%
M5	2002	0.63	0.45%
M5	2003	0.63	0.45%
M5	2004	0.63	0.45%
M5	2005	0.63	0.45%
M5	2006	0.63	0.45%
M5	2007	0.63	0.45%
M5	2008	0.63	0.45%
M5	2009	0.54	0.39%
M5	2010	0.54	0.39%

M5	2011	0.54	0.39%
M5	2012	0.54	0.39%
M5	2013	0.45	0.32%
M5	2014	0.45	0.32%
M5	2015	0	0.00%
M5	2016	0	0.00%
M6	1988	270.99	16.09%
M6	1989	257.4	15.28%
M6	1990	230.22	13.67%
M6	1991	176.85	10.50%
M6	1996	95.85	5.69%
M6	1997	41.13	2.44%
M6	1998	35.28	2.09%
M6	1999	27.54	1.64%
M6	2000	21.87	1.30%
M6	2001	21.78	1.29%
M6	2002	20.43	1.21%
M6	2003	19.26	1.14%
M6	2004	18.99	1.13%
M6	2005	18.9	1.12%
M6	2006	18	1.07%
M6	2007	16.83	1.00%
M6	2008	15.93	0.95%
M6	2009	13.95	0.83%
M6	2010	13.14	0.78%
M6	2011	12.6	0.75%
M6	2012	12.6	0.75%
M6	2013	11.88	0.71%
M6	2014	9.9	0.59%
M6	2015	8.82	0.52%
M6	2016	5.49	0.33%

M7	1988	6924.06	31.50%
M7	1989	6645.33	30.23%
M7	1990	6209.55	28.25%
M7	1991	4117.14	18.73%
M7	1996	3084.39	14.03%
M7	1997	2492.73	11.34%
M7	1998	2454.84	11.17%
M7	1999	2296.98	10.45%
M7	2000	2251.08	10.24%
M7	2001	2239.29	10.19%
M7	2002	2139.93	9.73%
M7	2003	2129.85	9.69%
M7	2004	2120.58	9.65%
M7	2005	2097.54	9.54%
M7	2006	2069.64	9.41%
M7	2007	2018.61	9.18%
M7	2008	1967.49	8.95%
M7	2009	1904.49	8.66%
M7	2010	1829.43	8.32%
M7	2011	1785.87	8.12%
M7	2012	1737.72	7.90%
M7	2013	1681.38	7.65%
M7	2014	1603.98	7.30%
M7	2015	1505.43	6.85%
M7	2016	1421.37	6.47%
M8	1988	276.03	37.91%
M8	1989	267.66	36.76%
M8	1990	259.83	35.69%
M8	1991	199.71	27.43%
M8	1996	158.76	21.81%
M8	1997	153.9	21.14%

M8	1998	149.13	20.48%
M8	1999	122.22	16.79%
M8	2000	116.91	16.06%
M8	2001	116.82	16.05%
M8	2002	116.28	15.97%
M8	2003	114.21	15.69%
M8	2004	113.58	15.60%
M8	2005	109.44	15.03%
M8	2006	108.9	14.96%
M8	2007	108.18	14.86%
M8	2008	107.91	14.82%
M8	2009	103.41	14.20%
M8	2010	102.42	14.07%
M8	2011	98.64	13.55%
M8	2012	85.14	11.69%
M8	2013	79.56	10.93%
M8	2014	72.81	10.00%
M8	2015	70.02	9.62%
M8	2016	51.3	7.05%
M9	1988	0.99	0.38%
M9	1989	0.99	0.38%
M9	1990	0.9	0.35%
M9	1991	0.54	0.21%
M9	1996	0.54	0.21%
M9	1997	0.09	0.03%
M9	1998	0.09	0.03%
M9	1999	0.09	0.03%
M9	2000	0.09	0.03%
M9	2001	0.09	0.03%
M9	2002	0.09	0.03%
M9	2003	0.09	0.03%

M9	2004	0.09	0.03%
M9	2005	0.09	0.03%
M9	2006	0.09	0.03%
M9	2007	0.09	0.03%
M9	2008	0.09	0.03%
M9	2009	0.09	0.03%
M9	2010	0.09	0.03%
M9	2011	0.09	0.03%
M9	2012	0.09	0.03%
M9	2013	0.09	0.03%
M9	2014	0.09	0.03%
M9	2015	0	0.00%
M9	2016	0	0.00%
M10	1988	10.98	7.99%
M10	1989	10.44	7.60%
M10	1990	9.45	6.88%
M10	1991	8.19	5.96%
M10	1996	5.13	3.73%
M10	1997	4.41	3.21%
M10	1998	4.41	3.21%
M10	1999	3.69	2.69%
M10	2000	3.69	2.69%
M10	2001	3.24	2.36%
M10	2002	3.24	2.36%
M10	2003	3.24	2.36%
M10	2004	3.24	2.36%
M10	2005	3.24	2.36%
M10	2006	3.24	2.36%
M10	2007	3.24	2.36%
M10	2008	2.97	2.16%
M10	2009	2.97	2.16%

M10	2010	2.97	2.16%
M10	2011	1.44	1.05%
M10	2012	0	0.00%
M10	2013	0	0.00%
M10	2014	0	0.00%
M10	2015	0	0.00%
M10	2016	0	0.00%
M11	1988	0.27	0.09%
M11	1989	0.27	0.09%
M11	1990	0.27	0.09%
M11	1991	0	0.00%
M11	1996	0	0.00%
M11	1997	0	0.00%
M11	1998	0	0.00%
M11	1999	0	0.00%
M11	2000	0	0.00%
M11	2001	0	0.00%
M11	2002	0	0.00%
M11	2003	0	0.00%
M11	2004	0	0.00%
M11	2005	0	0.00%
M11	2006	0	0.00%
M11	2007	0	0.00%
M11	2008	0	0.00%
M11	2009	0	0.00%
M11	2010	0	0.00%
M11	2011	0	0.00%
M11	2012	0	0.00%
M11	2013	0	0.00%
M11	2014	0	0.00%
M11	2015	0	0.00%

M11	2016	0	0.00%
M12	1988	100.35	5.58%
M12	1989	100.26	5.57%
M12	1990	95.67	5.32%
M12	1991	78.66	4.37%
M12	1996	41.4	2.30%
M12	1997	24.21	1.35%
M12	1998	22.32	1.24%
M12	1999	15.3	0.85%
M12	2000	8.37	0.47%
M12	2001	6.03	0.34%
M12	2002	3.42	0.19%
M12	2003	2.97	0.17%
M12	2004	2.97	0.17%
M12	2005	2.97	0.17%
M12	2006	2.97	0.17%
M12	2007	2.97	0.17%
M12	2008	2.97	0.17%
M12	2009	2.7	0.15%
M12	2010	2.43	0.14%
M12	2011	2.25	0.13%
M12	2012	1.26	0.07%
M12	2013	1.08	0.06%
M12	2014	0.36	0.02%
M12	2015	0.36	0.02%
M12	2016	0.36	0.02%
M13	1988	0.9	0.79%
M13	1989	0.9	0.79%
M13	1990	0.9	0.79%
M13	1991	0.9	0.79%
M13	1996	0	0.00%

M13	1997	0	0.00%
M13	1998	0	0.00%
M13	1999	0	0.00%
M13	2000	0	0.00%
M13	2001	0	0.00%
M13	2002	0	0.00%
M13	2003	0	0.00%
M13	2004	0	0.00%
M13	2005	0	0.00%
M13	2006	0	0.00%
M13	2007	0	0.00%
M13	2008	0	0.00%
M13	2009	0	0.00%
M13	2010	0	0.00%
M13	2011	0	0.00%
M13	2012	0	0.00%
M13	2013	0	0.00%
M13	2014	0	0.00%
M13	2015	0	0.00%
M13	2016	0	0.00%
M14	1988	84.15	3.62%
M14	1989	83.88	3.61%
M14	1990	82.53	3.55%
M14	1991	69.03	2.97%
M14	1996	6.48	0.28%
M14	1997	1.44	0.06%
M14	1998	0.63	0.03%
M14	1999	0.63	0.03%
M14	2000	0.63	0.03%
M14	2001	0.54	0.02%
M14	2002	0.54	0.02%

M14	2003	0.54	0.02%
M14	2004	0.54	0.02%
M14	2005	0.54	0.02%
M14	2006	0.45	0.02%
M14	2007	0.45	0.02%
M14	2008	0.45	0.02%
M14	2009	0.45	0.02%
M14	2010	0	0.00%
M14	2011	0	0.00%
M14	2012	0	0.00%
M14	2013	0	0.00%
M14	2014	0	0.00%
M14	2015	0	0.00%
M14	2016	0	0.00%
M15	1988	26.46	5.81%
M15	1989	26.46	5.81%
M15	1990	25.56	5.61%
M15	1991	24.3	5.33%
M15	1996	0.72	0.16%
M15	1997	0.63	0.14%
M15	1998	0.63	0.14%
M15	1999	0.54	0.12%
M15	2000	0.54	0.12%
M15	2001	0.45	0.10%
M15	2002	0.45	0.10%
M15	2003	0.45	0.10%
M15	2004	0.45	0.10%
M15	2005	0.45	0.10%
M15	2006	0.45	0.10%
M15	2007	0.45	0.10%
M15	2008	0.45	0.10%

M15	2009	0.45	0.10%
M15	2010	0.36	0.08%
M15	2011	0.36	0.08%
M15	2012	0.36	0.08%
M15	2013	0.27	0.06%
M15	2014	0	0.00%
M15	2015	0	0.00%
M15	2016	0	0.00%
M16	1988	8.46	4.71%
M16	1989	7.65	4.26%
M16	1990	6.57	3.66%
M16	1991	3.78	2.11%
M16	1996	2.43	1.35%
M16	1997	1.53	0.85%
M16	1998	0	0.00%
M16	1999	0	0.00%
M16	2000	0	0.00%
M16	2001	0	0.00%
M16	2002	0	0.00%
M16	2003	0	0.00%
M16	2004	0	0.00%
M16	2005	0	0.00%
M16	2006	0	0.00%
M16	2007	0	0.00%
M16	2008	0	0.00%
M16	2009	0	0.00%
M16	2010	0	0.00%
M16	2011	0	0.00%
M16	2012	0	0.00%
M16	2013	0	0.00%
M16	2014	0	0.00%

M16	2015	0	0.00%
M16	2016	0	0.00%
M17	1988	0	0.00%
M17	1989	0	0.00%
M17	1990	0	0.00%
M17	1991	0	0.00%
M17	1996	0	0.00%
M17	1997	0	0.00%
M17	1998	0	0.00%
M17	1999	0	0.00%
M17	2000	0	0.00%
M17	2001	0	0.00%
M17	2002	0	0.00%
M17	2003	0	0.00%
M17	2004	0	0.00%
M17	2005	0	0.00%
M17	2006	0	0.00%
M17	2007	0	0.00%
M17	2008	0	0.00%
M17	2009	0	0.00%
M17	2010	0	0.00%
M17	2011	0	0.00%
M17	2012	0	0.00%
M17	2013	0	0.00%
M17	2014	0	0.00%
M17	2015	0	0.00%
M17	2016	0	0.00%
M18	1988	63.72	11.90%
M18	1989	63.72	11.90%
M18	1990	62.91	11.74%
M18	1991	62.1	11.59%

M18	1996	38.16	7.12%
M18	1997	3.69	0.69%
M18	1998	3.33	0.62%
M18	1999	1.89	0.35%
M18	2000	1.35	0.25%
M18	2001	1.35	0.25%
M18	2002	0.9	0.17%
M18	2003	0.72	0.13%
M18	2004	0.72	0.13%
M18	2005	0.72	0.13%
M18	2006	0.72	0.13%
M18	2007	0.72	0.13%
M18	2008	0.72	0.13%
M18	2009	0.72	0.13%
M18	2010	0.72	0.13%
M18	2011	0.72	0.13%
M18	2012	0.54	0.10%
M18	2013	0	0.00%
M18	2014	0	0.00%
M18	2015	0	0.00%
M18	2016	0	0.00%
M19	1988	13.86	7.74%
M19	1989	13.86	7.74%
M19	1990	13.5	7.54%
M19	1991	13.32	7.44%
M19	1996	5.67	3.17%
M19	1997	0.9	0.50%
M19	1998	0.81	0.45%
M19	1999	0.72	0.40%
M19	2000	0.72	0.40%
M19	2001	0.63	0.35%

M19	2002	0.54	0.30%
M19	2003	0.45	0.25%
M19	2004	0.45	0.25%
M19	2005	0.18	0.10%
M19	2006	0.18	0.10%
M19	2007	0.18	0.10%
M19	2008	0.18	0.10%
M19	2009	0.18	0.10%
M19	2010	0.18	0.10%
M19	2011	0.18	0.10%
M19	2012	0.09	0.05%
M19	2013	0	0.00%
M19	2014	0	0.00%
M19	2015	0	0.00%
M19	2016	0	0.00%
M20	1988	798.21	5.25%
M20	1989	798.21	5.25%
M20	1990	716.76	4.71%
M20	1991	680.49	4.48%
M20	1996	204.12	1.34%
M20	1997	32.22	0.21%
M20	1998	17.19	0.11%
M20	1999	4.95	0.03%
M20	2000	4.95	0.03%
M20	2001	4.95	0.03%
M20	2002	4.95	0.03%
M20	2003	4.95	0.03%
M20	2004	4.32	0.03%
M20	2005	4.14	0.03%
M20	2006	3.51	0.02%
M20	2007	3.24	0.02%

M20	2008	3.15	0.02%
M20	2009	3.06	0.02%
M20	2010	3.06	0.02%
M20	2011	2.88	0.02%
M20	2012	2.34	0.02%
M20	2013	2.34	0.02%
M20	2014	2.25	0.01%
M20	2015	1.71	0.01%
M20	2016	1.62	0.01%
M21	1988	0.45	0.15%
M21	1989	0.45	0.15%
M21	1990	0.45	0.15%
M21	1991	0.36	0.12%
M21	1996	0	0.00%
M21	1997	0	0.00%
M21	1998	0	0.00%
M21	1999	0	0.00%
M21	2000	0	0.00%
M21	2001	0	0.00%
M21	2002	0	0.00%
M21	2003	0	0.00%
M21	2004	0	0.00%
M21	2005	0	0.00%
M21	2006	0	0.00%
M21	2007	0	0.00%
M21	2008	0	0.00%
M21	2009	0	0.00%
M21	2010	0	0.00%
M21	2011	0	0.00%
M21	2012	0	0.00%
M21	2013	0	0.00%

M21	2014	0	0.00%
M21	2015	0	0.00%
M21	2016	0	0.00%
M22	1988	0.45	0.05%
M22	1989	0	0.00%
M22	1990	0	0.00%
M22	1991	0	0.00%
M22	1996	0	0.00%
M22	1997	0	0.00%
M22	1998	0	0.00%
M22	1999	0	0.00%
M22	2000	0	0.00%
M22	2001	0	0.00%
M22	2002	0	0.00%
M22	2003	0	0.00%
M22	2004	0	0.00%
M22	2005	0	0.00%
M22	2006	0	0.00%
M22	2007	0	0.00%
M22	2008	0	0.00%
M22	2009	0	0.00%
M22	2010	0	0.00%
M22	2011	0	0.00%
M22	2012	0	0.00%
M22	2013	0	0.00%
M22	2014	0	0.00%
M22	2015	0	0.00%
M22	2016	0	0.00%
M23	1988	2.16	1.33%
M23	1989	0.81	0.50%
M23	1990	0.72	0.44%

M23	1991	0	0.00%
M23	1996	0	0.00%
M23	1997	0	0.00%
M23	1998	0	0.00%
M23	1999	0	0.00%
M23	2000	0	0.00%
M23	2001	0	0.00%
M23	2002	0	0.00%
M23	2003	0	0.00%
M23	2004	0	0.00%
M23	2005	0	0.00%
M23	2006	0	0.00%
M23	2007	0	0.00%
M23	2008	0	0.00%
M23	2009	0	0.00%
M23	2010	0	0.00%
M23	2011	0	0.00%
M23	2012	0	0.00%
M23	2013	0	0.00%
M23	2014	0	0.00%
M23	2015	0	0.00%
M23	2016	0	0.00%
M24	1988	125.55	1.57%
M24	1989	94.95	1.19%
M24	1990	90.36	1.13%
M24	1991	42.21	0.53%
M24	1996	17.55	0.22%
M24	1997	12.96	0.16%
M24	1998	5.22	0.07%
M24	1999	5.13	0.06%
M24	2000	4.59	0.06%

M24	2001	4.41	0.06%
M24	2002	3.96	0.05%
M24	2003	2.34	0.03%
M24	2004	2.34	0.03%
M24	2005	2.34	0.03%
M24	2006	1.35	0.02%
M24	2007	1.35	0.02%
M24	2008	1.35	0.02%
M24	2009	1.35	0.02%
M24	2010	1.35	0.02%
M24	2011	1.35	0.02%
M24	2012	1.35	0.02%
M24	2013	1.35	0.02%
M24	2014	1.08	0.01%
M24	2015	1.08	0.01%
M24	2016	0.99	0.01%
M25	1988	1.8	1.75%
M25	1989	1.8	1.75%
M25	1990	0.45	0.44%
M25	1991	0.45	0.44%
M25	1996	0	0.00%
M25	1997	0	0.00%
M25	1998	0	0.00%
M25	1999	0	0.00%
M25	2000	0	0.00%
M25	2001	0	0.00%
M25	2002	0	0.00%
M25	2003	0	0.00%
M25	2004	0	0.00%
M25	2005	0	0.00%
M25	2006	0	0.00%

M25	2007	0	0.00%
M25	2008	0	0.00%
M25	2009	0	0.00%
M25	2010	0	0.00%
M25	2011	0	0.00%
M25	2012	0	0.00%
M25	2013	0	0.00%
M25	2014	0	0.00%
M25	2015	0	0.00%
M25	2016	0	0.00%
M26	1988	0	0.00%
M26	1989	0	0.00%
M26	1990	0	0.00%
M26	1991	0	0.00%
M26	1996	0	0.00%
M26	1997	0	0.00%
M26	1998	0	0.00%
M26	1999	0	0.00%
M26	2000	0	0.00%
M26	2001	0	0.00%
M26	2002	0	0.00%
M26	2003	0	0.00%
M26	2004	0	0.00%
M26	2005	0	0.00%
M26	2006	0	0.00%
M26	2007	0	0.00%
M26	2008	0	0.00%
M26	2009	0	0.00%
M26	2010	0	0.00%
M26	2011	0	0.00%
M26	2012	0	0.00%

M26	2013	0	0.00%
M26	2014	0	0.00%
M26	2015	0	0.00%
M26	2016	0	0.00%
M27	1988	61.56	15.34%
M27	1989	61.56	15.34%
M27	1990	60.21	15.01%
M27	1991	53.64	13.37%
M27	1996	22.5	5.61%
M27	1997	8.64	2.15%
M27	1998	3.96	0.99%
M27	1999	3.24	0.81%
M27	2000	2.7	0.67%
M27	2001	0.72	0.18%
M27	2002	0.45	0.11%
M27	2003	0	0.00%
M27	2004	0	0.00%
M27	2005	0	0.00%
M27	2006	0	0.00%
M27	2007	0	0.00%
M27	2008	0	0.00%
M27	2009	0	0.00%
M27	2010	0	0.00%
M27	2011	0	0.00%
M27	2012	0	0.00%
M27	2013	0	0.00%
M27	2014	0	0.00%
M27	2015	0	0.00%
M27	2016	0	0.00%
M28	1988	18.45	4.18%
M28	1989	18.18	4.12%

M28	1990	17.19	3.89%
M28	1991	11.34	2.57%
M28	1996	2.16	0.49%
M28	1997	0	0.00%
M28	1998	0	0.00%
M28	1999	0	0.00%
M28	2000	0	0.00%
M28	2001	0	0.00%
M28	2002	0	0.00%
M28	2003	0	0.00%
M28	2004	0	0.00%
M28	2005	0	0.00%
M28	2006	0	0.00%
M28	2007	0	0.00%
M28	2008	0	0.00%
M28	2009	0	0.00%
M28	2010	0	0.00%
M28	2011	0	0.00%
M28	2012	0	0.00%
M28	2013	0	0.00%
M28	2014	0	0.00%
M28	2015	0	0.00%
M28	2016	0	0.00%
M29	1988	0.72	0.53%
M29	1989	0.72	0.53%
M29	1990	0.72	0.53%
M29	1991	0.72	0.53%
M29	1996	0	0.00%
M29	1997	0	0.00%
M29	1998	0	0.00%
M29	1999	0	0.00%

M29	2000	0	0.00%
M29	2001	0	0.00%
M29	2002	0	0.00%
M29	2003	0	0.00%
M29	2004	0	0.00%
M29	2005	0	0.00%
M29	2006	0	0.00%
M29	2007	0	0.00%
M29	2008	0	0.00%
M29	2009	0	0.00%
M29	2010	0	0.00%
M29	2011	0	0.00%
M29	2012	0	0.00%
M29	2013	0	0.00%
M29	2014	0	0.00%
M29	2015	0	0.00%
M29	2016	0	0.00%
M30	1988	5.31	1.80%
M30	1989	5.22	1.77%
M30	1990	4.95	1.68%
M30	1991	3.33	1.13%
M30	1996	0	0.00%
M30	1997	0	0.00%
M30	1998	0	0.00%
M30	1999	0	0.00%
M30	2000	0	0.00%
M30	2001	0	0.00%
M30	2002	0	0.00%
M30	2003	0	0.00%
M30	2004	0	0.00%
M30	2005	0	0.00%

M30	2006	0	0.00%
M30	2007	0	0.00%
M30	2008	0	0.00%
M30	2009	0	0.00%
M30	2010	0	0.00%
M30	2011	0	0.00%
M30	2012	0	0.00%
M30	2013	0	0.00%
M30	2014	0	0.00%
M30	2015	0	0.00%
M30	2016	0	0.00%
M31	1988	12.15	7.44%
M31	1989	11.79	7.22%
M31	1990	8.64	5.29%
M31	1991	1.08	0.66%
M31	1996	0.54	0.33%
M31	1997	0.54	0.33%
M31	1998	0.54	0.33%
M31	1999	0.54	0.33%
M31	2000	0.45	0.28%
M31	2001	0.18	0.11%
M31	2002	0	0.00%
M31	2003	0	0.00%
M31	2004	0	0.00%
M31	2005	0	0.00%
M31	2006	0	0.00%
M31	2007	0	0.00%
M31	2008	0	0.00%
M31	2009	0	0.00%
M31	2010	0	0.00%
M31	2011	0	0.00%

M31	2012	0	0.00%
M31	2013	0	0.00%
M31	2014	0	0.00%
M31	2015	0	0.00%
M31	2016	0	0.00%
M32	1988	83.97	5.44%
M32	1989	66.51	4.31%
M32	1990	44.37	2.88%
M32	1991	16.56	1.07%
M32	1996	15.3	0.99%
M32	1997	13.77	0.89%
M32	1998	13.5	0.87%
M32	1999	12.78	0.83%
M32	2000	12.51	0.81%
M32	2001	12.51	0.81%
M32	2002	11.52	0.75%
M32	2003	11.34	0.73%
M32	2004	11.34	0.73%
M32	2005	8.73	0.57%
M32	2006	7.74	0.50%
M32	2007	7.74	0.50%
M32	2008	7.56	0.49%
M32	2009	7.56	0.49%
M32	2010	7.47	0.48%
M32	2011	7.47	0.48%
M32	2012	7.47	0.48%
M32	2013	7.47	0.48%
M32	2014	7.11	0.46%
M32	2015	7.11	0.46%
M32	2016	6.93	0.45%
M33	1988	15.93	12.62%

M33	1989	12.24	9.70%
M33	1990	11.7	9.27%
M33	1991	3.51	2.78%
M33	1996	0.72	0.57%
M33	1997	0.45	0.36%
M33	1998	0	0.00%
M33	1999	0	0.00%
M33	2000	0	0.00%
M33	2001	0	0.00%
M33	2002	0	0.00%
M33	2003	0	0.00%
M33	2004	0	0.00%
M33	2005	0	0.00%
M33	2006	0	0.00%
M33	2007	0	0.00%
M33	2008	0	0.00%
M33	2009	0	0.00%
M33	2010	0	0.00%
M33	2011	0	0.00%
M33	2012	0	0.00%
M33	2013	0	0.00%
M33	2014	0	0.00%
M33	2015	0	0.00%
M33	2016	0	0.00%
M34	1988	22.77	5.99%
M34	1989	14.04	3.69%
M34	1990	9.99	2.63%
M34	1991	2.88	0.76%
M34	1996	2.07	0.54%
M34	1997	0.27	0.07%
M34	1998	0.27	0.07%

M34	1999	0.27	0.07%
M34	2000	0.27	0.07%
M34	2001	0.27	0.07%
M34	2002	0	0.00%
M34	2003	0	0.00%
M34	2004	0	0.00%
M34	2005	0	0.00%
M34	2006	0	0.00%
M34	2007	0	0.00%
M34	2008	0	0.00%
M34	2009	0	0.00%
M34	2010	0	0.00%
M34	2011	0	0.00%
M34	2012	0	0.00%
M34	2013	0	0.00%
M34	2014	0	0.00%
M34	2015	0	0.00%
M34	2016	0	0.00%
M35	1988	10.98	9.62%
M35	1989	6.3	5.52%
M35	1990	4.59	4.02%
M35	1991	0.45	0.39%
M35	1996	0.45	0.39%
M35	1997	0	0.00%
M35	1998	0	0.00%
M35	1999	0	0.00%
M35	2000	0	0.00%
M35	2001	0	0.00%
M35	2002	0	0.00%
M35	2003	0	0.00%
M35	2004	0	0.00%

M35	2005	0	0.00%
M35	2006	0	0.00%
M35	2007	0	0.00%
M35	2008	0	0.00%
M35	2009	0	0.00%
M35	2010	0	0.00%
M35	2011	0	0.00%
M35	2012	0	0.00%
M35	2013	0	0.00%
M35	2014	0	0.00%
M35	2015	0	0.00%
M35	2016	0	0.00%
M36	1988	0	0.00%
M36	1989	0	0.00%
M36	1990	0	0.00%
M36	1991	0	0.00%
M36	1996	0	0.00%
M36	1997	0	0.00%
M36	1998	0	0.00%
M36	1999	0	0.00%
M36	2000	0	0.00%
M36	2001	0	0.00%
M36	2002	0	0.00%
M36	2003	0	0.00%
M36	2004	0	0.00%
M36	2005	0	0.00%
M36	2006	0	0.00%
M36	2007	0	0.00%
M36	2008	0	0.00%
M36	2009	0	0.00%
M36	2010	0	0.00%

M36	2011	0	0.00%
M36	2012	0	0.00%
M36	2013	0	0.00%
M36	2014	0	0.00%
M36	2015	0	0.00%
M36	2016	0	0.00%
M37	1988	1.89	1.61%
M37	1989	1.62	1.38%
M37	1990	1.53	1.31%
M37	1991	0	0.00%
M37	1996	0	0.00%
M37	1997	0	0.00%
M37	1998	0	0.00%
M37	1999	0	0.00%
M37	2000	0	0.00%
M37	2001	0	0.00%
M37	2002	0	0.00%
M37	2003	0	0.00%
M37	2004	0	0.00%
M37	2005	0	0.00%
M37	2006	0	0.00%
M37	2007	0	0.00%
M37	2008	0	0.00%
M37	2009	0	0.00%
M37	2010	0	0.00%
M37	2011	0	0.00%
M37	2012	0	0.00%
M37	2013	0	0.00%
M37	2014	0	0.00%
M37	2015	0	0.00%
M37	2016	0	0.00%

M38	1988	5.67	5.08%
M38	1989	2.97	2.66%
M38	1990	2.97	2.66%
M38	1991	1.35	1.21%
M38	1996	0.63	0.56%
M38	1997	0.63	0.56%
M38	1998	0.63	0.56%
M38	1999	0.63	0.56%
M38	2000	0.63	0.56%
M38	2001	0.54	0.48%
M38	2002	0.54	0.48%
M38	2003	0.54	0.48%
M38	2004	0.54	0.48%
M38	2005	0.54	0.48%
M38	2006	0.54	0.48%
M38	2007	0.54	0.48%
M38	2008	0.54	0.48%
M38	2009	0.54	0.48%
M38	2010	0.54	0.48%
M38	2011	0.54	0.48%
M38	2012	0.54	0.48%
M38	2013	0.09	0.08%
M38	2014	0.09	0.08%
M38	2015	0.09	0.08%
M38	2016	0.09	0.08%
M39	1988	44.64	22.90%
M39	1989	33.21	17.03%
M39	1990	32.67	16.76%
M39	1991	17.64	9.05%
M39	1996	14.4	7.39%
M39	1997	1.8	0.92%

M39	1998	1.08	0.55%
M39	1999	0.81	0.42%
M39	2000	0.81	0.42%
M39	2001	0.81	0.42%
M39	2002	0.72	0.37%
M39	2003	0.72	0.37%
M39	2004	0.45	0.23%
M39	2005	0.36	0.18%
M39	2006	0.36	0.18%
M39	2007	0.36	0.18%
M39	2008	0.36	0.18%
M39	2009	0.36	0.18%
M39	2010	0.36	0.18%
M39	2011	0.36	0.18%
M39	2012	0.36	0.18%
M39	2013	0.36	0.18%
M39	2014	0.36	0.18%
M39	2015	0.36	0.18%
M39	2016	0.36	0.18%
M40	1988	53.91	20.48%
M40	1989	52.02	19.77%
M40	1990	51.93	19.73%
M40	1991	45.45	17.27%
M40	1996	42.66	16.21%
M40	1997	34.29	13.03%
M40	1998	32.04	12.17%
M40	1999	27.99	10.64%
M40	2000	24.48	9.30%
M40	2001	22.5	8.55%
M40	2002	18.81	7.15%
M40	2003	18.54	7.04%

M40	2004	15.39	5.85%
M40	2005	14.13	5.37%
M40	2006	13.68	5.20%
M40	2007	13.59	5.16%
M40	2008	13.59	5.16%
M40	2009	13.5	5.13%
M40	2010	13.5	5.13%
M40	2011	13.5	5.13%
M40	2012	13.5	5.13%
M40	2013	13.32	5.06%
M40	2014	12.78	4.86%
M40	2015	11.7	4.45%
M40	2016	11.61	4.41%
M41	1988	30.51	22.79%
M41	1989	22.68	16.94%
M41	1990	21.15	15.80%
M41	1991	15.93	11.90%
M41	1996	14.31	10.69%
M41	1997	12.51	9.35%
M41	1998	6.3	4.71%
M41	1999	4.59	3.43%
M41	2000	3.96	2.96%
M41	2001	2.88	2.15%
M41	2002	1.62	1.21%
M41	2003	1.62	1.21%
M41	2004	1.17	0.87%
M41	2005	1.08	0.81%
M41	2006	0.99	0.74%
M41	2007	0.99	0.74%
M41	2008	0.99	0.74%
M41	2009	0.9	0.67%

M41	2010	0.9	0.67%
M41	2011	0.45	0.34%
M41	2012	0.45	0.34%
M41	2013	0.45	0.34%
M41	2014	0.45	0.34%
M41	2015	0	0.00%
M41	2016	0	0.00%
M42	1988	132.66	46.74%
M42	1989	128.07	45.12%
M42	1990	121.86	42.93%
M42	1991	116.28	40.97%
M42	1996	108.36	38.18%
M42	1997	100.44	35.39%
M42	1998	97.2	34.24%
M42	1999	91.98	32.41%
M42	2000	83.16	29.30%
M42	2001	76.59	26.98%
M42	2002	71.91	25.33%
M42	2003	67.86	23.91%
M42	2004	63.09	22.23%
M42	2005	57.51	20.26%
M42	2006	52.02	18.33%
M42	2007	45.54	16.04%
M42	2008	41.49	14.62%
M42	2009	38.7	13.63%
M42	2010	36.9	13.00%
M42	2011	34.65	12.21%
M42	2012	30.87	10.88%
M42	2013	25.65	9.04%
M42	2014	20.34	7.17%
M42	2015	18.36	6.47%

M42	2016	17.82	6.28%
M43	1988	1.17	0.62%
M43	1989	1.17	0.62%
M43	1990	1.17	0.62%
M43	1991	1.08	0.57%
M43	1996	0.9	0.48%
M43	1997	0	0.00%
M43	1998	0	0.00%
M43	1999	0	0.00%
M43	2000	0	0.00%
M43	2001	0	0.00%
M43	2002	0	0.00%
M43	2003	0	0.00%
M43	2004	0	0.00%
M43	2005	0	0.00%
M43	2006	0	0.00%
M43	2007	0	0.00%
M43	2008	0	0.00%
M43	2009	0	0.00%
M43	2010	0	0.00%
M43	2011	0	0.00%
M43	2012	0	0.00%
M43	2013	0	0.00%
M43	2014	0	0.00%
M43	2015	0	0.00%
M43	2016	0	0.00%
M44	1988	255.51	6.49%
M44	1989	255.51	6.49%
M44	1990	240.57	6.11%
M44	1991	215.01	5.46%
M44	1996	36.63	0.93%

M44	1997	17.19	0.44%
M44	1998	16.65	0.42%
M44	1999	12.06	0.31%
M44	2000	9.09	0.23%
M44	2001	8.91	0.23%
M44	2002	8.46	0.21%
M44	2003	8.46	0.21%
M44	2004	8.46	0.21%
M44	2005	8.1	0.21%
M44	2006	8.1	0.21%
M44	2007	8.1	0.21%
M44	2008	8.01	0.20%
M44	2009	8.01	0.20%
M44	2010	8.01	0.20%
M44	2011	8.01	0.20%
M44	2012	7.92	0.20%
M44	2013	7.47	0.19%
M44	2014	6.93	0.18%
M44	2015	6.93	0.18%
M44	2016	6.75	0.17%
M45	1988	50.4	8.74%
M45	1989	50.4	8.74%
M45	1990	41.49	7.19%
M45	1991	25.92	4.49%
M45	1996	3.6	0.62%
M45	1997	0	0.00%
M45	1998	0	0.00%
M45	1999	0	0.00%
M45	2000	0	0.00%
M45	2001	0	0.00%
M45	2002	0	0.00%

M45	2003	0	0.00%
M45	2004	0	0.00%
M45	2005	0	0.00%
M45	2006	0	0.00%
M45	2007	0	0.00%
M45	2008	0	0.00%
M45	2009	0	0.00%
M45	2010	0	0.00%
M45	2011	0	0.00%
M45	2012	0	0.00%
M45	2013	0	0.00%
M45	2014	0	0.00%
M45	2015	0	0.00%
M45	2016	0	0.00%
M46	1988	1134.45	13.17%
M46	1989	1053.9	12.24%
M46	1990	777.6	9.03%
M46	1991	540.45	6.28%
M46	1996	290.79	3.38%
M46	1997	186.21	2.16%
M46	1998	157.68	1.83%
M46	1999	117.81	1.37%
M46	2000	82.35	0.96%
M46	2001	80.82	0.94%
M46	2002	75.6	0.88%
M46	2003	71.37	0.83%
M46	2004	68.94	0.80%
M46	2005	65.52	0.76%
M46	2006	57.33	0.67%
M46	2007	51.48	0.60%
M46	2008	45.9	0.53%

M46	2009	41.22	0.48%
M46	2010	36.99	0.43%
M46	2011	34.65	0.40%
M46	2012	30.6	0.36%
M46	2013	24.3	0.28%
M46	2014	22.05	0.26%
M46	2015	20.07	0.23%
M46	2016	19.26	0.22%
M47	1988	12280.86	11.48%
M47	1989	11026.89	10.31%
M47	1990	9941.85	9.29%
M47	1991	8297.73	7.76%
M47	1996	6341.31	5.93%
M47	1997	5097.24	4.76%
M47	1998	4369.95	4.08%
M47	1999	3950.37	3.69%
M47	2000	3422.88	3.20%
M47	2001	3113.82	2.91%
M47	2002	2868.39	2.68%
M47	2003	2691.45	2.52%
M47	2004	2588.58	2.42%
M47	2005	2456.91	2.30%
M47	2006	2366.01	2.21%
M47	2007	2327.67	2.18%
M47	2008	2263.5	2.12%
M47	2009	2233.71	2.09%
M47	2010	2197.26	2.05%
M47	2011	2154.33	2.01%
M47	2012	2068.83	1.93%
M47	2013	1921.95	1.80%
M47	2014	1816.11	1.70%

M47	2015	1708.74	1.60%
M47	2016	1582.11	1.48%
M48	1988	539.55	3.94%
M48	1989	450.09	3.28%
M48	1990	416.34	3.04%
M48	1991	286.11	2.09%
M48	1996	156.51	1.14%
M48	1997	103.86	0.76%
M48	1998	71.73	0.52%
M48	1999	67.59	0.49%
M48	2000	55.26	0.40%
M48	2001	51.3	0.37%
M48	2002	44.37	0.32%
M48	2003	35.37	0.26%
M48	2004	30.87	0.23%
M48	2005	30.06	0.22%
M48	2006	27.36	0.20%
M48	2007	26.64	0.19%
M48	2008	26.28	0.19%
M48	2009	26.28	0.19%
M48	2010	26.19	0.19%
M48	2011	26.1	0.19%
M48	2012	25.02	0.18%
M48	2013	23.76	0.17%
M48	2014	22.41	0.16%
M48	2015	20.97	0.15%
M48	2016	18.63	0.14%
M49	1988	0.36	0.34%
M49	1989	0.36	0.34%
M49	1990	0.36	0.34%
M49	1991	0.36	0.34%

M49	1996	0.18	0.17%
M49	1997	0	0.00%
M49	1998	0	0.00%
M49	1999	0	0.00%
M49	2000	0	0.00%
M49	2001	0	0.00%
M49	2002	0	0.00%
M49	2003	0	0.00%
M49	2004	0	0.00%
M49	2005	0	0.00%
M49	2006	0	0.00%
M49	2007	0	0.00%
M49	2008	0	0.00%
M49	2009	0	0.00%
M49	2010	0	0.00%
M49	2011	0	0.00%
M49	2012	0	0.00%
M49	2013	0	0.00%
M49	2014	0	0.00%
M49	2015	0	0.00%
M49	2016	0	0.00%
M50	1988	25.29	1.86%
M50	1989	25.29	1.86%
M50	1990	24.21	1.78%
M50	1991	22.05	1.62%
M50	1996	13.5	0.99%
M50	1997	4.23	0.31%
M50	1998	3.87	0.29%
M50	1999	2.52	0.19%
M50	2000	2.43	0.18%
M50	2001	2.34	0.17%

M50	2002	1.35	0.10%
M50	2003	0.72	0.05%
M50	2004	0.72	0.05%
M50	2005	0.72	0.05%
M50	2006	0	0.00%
M50	2007	0	0.00%
M50	2008	0	0.00%
M50	2009	0	0.00%
M50	2010	0	0.00%
M50	2011	0	0.00%
M50	2012	0	0.00%
M50	2013	0	0.00%
M50	2014	0	0.00%
M50	2015	0	0.00%
M50	2016	0	0.00%