Transfrontier Ecosystems and Internationally Adjoining Protected Areas

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1. The "Nature" of Boundaries

Nature rarely notices political boundaries. Most of the arbitrarily-drawn political boundaries dividing the Earth into countries were delineated as a result of wars or political compromises, often by geographers never even having set eyes on the land. As a result, these political divisions frequently have severed functioning ecosystems. Although neither animals nor plants recognize these arbitrary boundaries, the fact that humans do often threatens the continued survival of the other species and the ecosystems. As conservation biologists have begun to emphasize the importance of larger-scale ecosystem-based management and regional approaches to biodiversity conservation, political boundaries dividing ecosystems have become even more problematic.

For the past 120 years, protected natural areas have been the traditional means of nature conservation. Today these areas encompass approximately 13.2 million square kilometers around the world (Green and Paine 1998). For various reasons, many of these protected areas exist on international boundaries, and many of these suggest the existence of transfrontier ecosystems. These are especially likely where protected areas in different countries adjoin across international boundaries. This paper contains an updated *Global List of Adjoining Protected Areas* (as of early 1999), referred to earlier as "transfrontier protected areas complexes", (Zbicz and Green 1997a) (Zbicz and Green 1997b). Although continually evolving, this list provides a glimpse of the extent of the problem of internationally divided ecosystems and the need for improved transfrontier cooperation

2. A Global List of Adjoining Protected Areas

Although never truly "complete", the process of compiling a comprehensive list of adjoining protected areas involved over two years of effort on the part of the author and the assistance of countless protected area experts and professionals. The effort began with a preliminary list of seventy "Border Parks" identified by Jeremy Harrison of WCMC and Jim Thorsell of IUCN for the Border Parks Workshop held at the first Global Conference on Tourism in Vancouver in 1988. (Thorsell 1990, 13). This early list was expanded by incorporating other regional lists from various sources and from the many individuals at Duke University working with protected areas around the world. Input was also solicited from protected area professionals attending the IUCN World Conservation Congress in Montreal in October 1996. In the spring of 1997, the author spent several weeks at the World Conservation Monitoring Centre (WCMC) in Cambridge, UK comparing this compiled list with the Centre's Protected Areas Database and its Geographic Information System Biodiversity Map Library. The staff of the Protected Areas Unit also offered assistance and regional expertise. The list was then taken to the World Conservation Union (IUCN) headquarters in Switzerland. At a meeting of the Steering Committee of IUCN's World Commission on Protected Areas, the Vice Chairs from each region and the Protected Areas team at IUCN further amended and added to it. International correspondence by fax, mail and electronic mail throughout the process enabled ground-truthing by hundreds of protected area managers and professionals around the world. In

¹ This term was used in the draft version of the list and an accompanying paper by the author and Michael J. B. Green that was presented at the "International Conference on Transboundary Protected Areas as a Vehicle for International Cooperation" in Somerset West, South Africa 16-18 September 1997.

1998, the list was updated with information received from responses to a global survey mailed, with the assistance of IUCN, to the managers of all the adjoining protected areas (Zbicz 1999).

3. Who's In and Who's Out

Choices were necessary to decide which protected areas should be included on the list. The 1988 list had included parks on international borders, not all necessarily having counterpart protected areas across the border. In addition to border parks, many other names have been used for these areas, including peace parks, transfrontier nature reserves, transborder or transboundary protected areas, etc. Some of these terms imply a level of transboundary cooperation which may or may not exist. In many cases, all that is "transboundary" about the protected areas is a shared ecosystem, certainly not cooperation or management. Since one purpose of this list was to identify internationally divided ecosystems, the decision was made to include only those places around the world where protected areas physically meet or nearly meet across international boundaries. Only international boundaries have been included - not internal boundaries within countries. The name *adjoining protected areas* was selected as the most appropriate descriptor.

A second question involved whether or not proposed sites should be included, as had been done in the 1988 list. The decision was made to include only sites where existing protected areas actually adjoin across international boundaries. Sites must qualify as protected areas under the 1994 IUCN definition of "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means" (IUCN 1994) In order to meet this criterion, a protected area must be so designated by its host government and must be of a size of at least 1,000 hectares. Since WCMC maintains the official government reports for compiling the UN List of Protected Areas, the WCMC database was used as the authority for official protected area status.

Using these these criteria meant that many complexes of proposed or smaller sites were omitted. In many situations a protected area is located on an international boundary, but no protected area exists in the adjoining country. In many of these cases, protection has been proposed on the other side or even be in the process of establishment. Therefore, a second list was created, containing sites where one side of the border has only a proposed protected area or one without an IUCN category (I-VI). This second list of sites which could not be verified in the WCMC database is not included here, but is currently being updated.

4. A Global List of Adjoining Protected Areas

Adhering to the criteria described above, 136 clusters of adjoining protected areas, or transfrontier protected area complexes were identified. These clusters include 488 different protected areas, 415 with IUCN designations, that adjoin others both within countries and across international frontiers. Together these clusters or complexes cover at least 10% of the total area of all protected areas in the world (Zbicz and Green 1997a). Usually containing more than two individual protected areas, up to as many as 13, they often provide continguous habitat for species. The 136 complexes involve 98 different countries, or almost half of the world's 224 countries and dependent territories (Ibid.). Twenty-seven of the complexes involve three different countries. Adjoining protected areas straddle 112 of the world's 309 different international boundaries maintained in the database of the International Boundaries Research Unit in Durham, UK (Pratt 1997). An additional 69 complexes are included on the list of potential adjoining protected areas. Together these existing and proposed complexes offer 205 potential opportunities for transfrontier biodiversity conservation.

Regions	Adjoining PA Complexes	Protected Areas	Proposed Complexes	Complexes with 3 Countries
N. America	8	42	4	0
C. & S. America	24	93	15	6
Europe	45	154	26	6
Africa	34	123	12	9
Asia	25	76	12	3
TOTAL	136	488	69	27

Table 1: Internationally Adjoining Protected Areas - 1998

5. Adjoining Protected Areas and Transfrontier Ecosystems

Adjoining protected areas are particularly important to biodiversity conservation because of the fact that they often involve transboundary ecosystems. To examine this, a question was included in the international survey mentioned above which asked if the adjoining protected areas shared an ecosystem. Surveys were sent to 132 of the 136 complexes that met the requirements of the study, with 5 being returned undelivered. Responses were received from 120 of the complexes. All 120 responded that at least two of the protected areas in the complex share ecosystems. This suggests that adjoining protected areas are indeed usually an indication of transfrontier ecosystems. Obviously not all internationally divided ecosystems appear on this list, as many do not have protected areas established on both sides of the border. However, it does represent a list of areas important not only because of their high political profile on international boundaries, but also because they contain some of the greatest remaining areas of biodiversity in the world. As mentioned earlier, however, nature does not recognize political boundaries, and in many cases, species continue to migrate across those borders as they always have, oblivious to customs regulations. Pursuing transfrontier cooperation and the creation of international peace parks in these 136 complexes of internationally adjoining protected areas would certainly be an important contribution to biodiversity conservation. A Global List of Adjoining Protected Areas is a first step.

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A Global List of Adjoining Protected Areas

Note: Complexes may include proposed protected areas and areas designated under national legislation that have not been assigned an IUCN Category (i.e. unassigned), provided that there is at least one established protected area adjacent to another either side of an international boundary.

Countries	WCMC Code	Designated Areas	IUCN Category
North America			
Canada/	612	Kluane National Park & Preserve	II
	18707	Kluane Wildlife Sanctuary Tatshenshini-Alsek Wilderness Park/	IV
	7406	Tatsnensnini-Aisek Wilderness Park/	II
US	13038	Tongass National Forest	IV
	1005 35387	Wrangell-St Elias National Park Wrangell-St Elias Wilderness Area	II Ib
	22490	Wrangell-St Elias National Preserve	V
	1010	Glacier Bay National Park	II
	22485	Glacier Bay National Preserve	V
	35382	Glacier Bay Wilderness Area	Ib
Canada/	626 21193	Waterton Lakes National Park Akamina Kishinena Provincial Park	II
	21193	Flathead Provincial Forest Reserve/	II
US	973	Glacier National Park	II
	100967	Flathead National Forest	VI
Canada/	100672	Ivvavik National Park	II
	100673	Vuntut National Park	II
	101594	Old Crow Flats Special Management Area/	Ib
US	2904	Arctic National Wildlife Refuge	IV
Canada/	66395	Quetico Wilderness Provincial Park	II
		Neguaguon Lake Indigenous Reserve/	
US	21322	Boundary Waters Canoe Area Wilderness Area	Ib
	100955	Superior National Forest	VI
G 1/	988	Voyageurs National Park	II
Canada/	4185 18646	Cathedral Provincial Park E. C. Manning Provincial Park	II
	101678	Skagit Valley Recreation Area	II
	65159	Cultus Lake Provincial Park	II
		Neguaguon Lake Indigenous Reserve/	
US	979	N. Cascades National Park	II
	21389	Pasayten Wilderness National Forest	Ib
Mexico/	101431	Sierra de Maderas del Carmen National Park	
	101457	Cañón de Santa Elena National Forest/	VI
US	976	Big Bend National Park	II
Mexico/	34862	Sierra de los Ajos National Park/	
US	100881	Coronado National Forest	
Mexico/	32971	El Pinacate y Gran Desierto de Altar National Biological Reserve	VI
	18091	Sierra del Pinacate Refugio	IV
	101409	Alto Golfo National Biological Reserve/	VI
US	13771	Cabeza Prieta National Wildlife Refuge	IV
	35472	Cabeza Prieta Wilderness Area	Ib
	35977	Organ Pipe Cactus Wilderness Area	Ib III
	1020	Organ Pipe Cactus National Monument Tohono O'odham Reservation	III
Latin America			
Belize/	20224	Rio Bravo Conservation Area Private Reserve	IV
20	61957	Aguas Turbia National Park/	П
Guatemala/	26621		n/a
Gualcinaia/	30604	Maya Biosphere Reserve El Mirador -Río Azul National Park	n/a Ia
	102817	Naachtún - Dos Lagunas Protected Biotope/	II
Mavico	19570		371
Mexico	195/0	Calakmul Biological Reserve	VI

Countries	WCMC Code	Designated Areas	IUCN Category
Belize/	20230	Chiquibul National Park	II
	3314	Columbia River Forest Reserve	VI
	116297 28850	Vaca Forest Reserve Maya Mountains Forest Reserve/	VI VI
	28830		VI
Guatemala	1.5	Complejo III - Reserva de Biosfera Montañas Mayas Chiquibul	
Costa Rica/	167 30599	Tortuguero National Park Tortuguero Protected Zone	II VI
	12493	Barro del Colorado National Wildlife Reserve/	IV
Nicaragua	30628	Río Indio-Maíz Biological Reserve	Ia
Tvicaragua	20220	San Juan Delta	Pr
Colombia/	142	Los Katios National Park/	II
Panama	236	Darién National Park	П
	102255	Punta Patiño Nature Reserve	
Costa Rica/	2553	La Amistad National Park	II
	12491	Las Tablas Protected Zone/	VI
Panama	2552	La Amistad National Park	II
	17185	Palo Seco	VI
	102253	Lagunas de Volcán	IV
Costa Rica/	19402	Gandoca y Manzanillo National Wildife Refuge/	IV
Panama	16787	Isla Bastimentos Marine National Park	II
El Salvador/	9638	Montecristo National Park/	IV
Guatemala/	102815	Fraternidad o Trifinio National Biosphere Reserve/	n/a
Honduras	18804	Montecristo Trifinio National Park	Ш
El Salvador/	18604	Proposed/	Pr
	40006		
Honduras/	40996	Río Negro Biological Reserve/	IV
Nicaragua	12652	Estero Real Natural Reserve	II
Guatemala/		Lacandón National Park/	
Mexico	14305	Montes Azules Biological Reserve	Ia
	67671	Bonompak National Monument	III
Honduras/	41014 41045	Río Plátano National Park Tawasha Indigenous Reserve	Pr
	41043	Patuca National Park	II
	41034	Río Coco Natural Monument/	Pr
Nicaragua	2650	Bosawas National Reserve	VI
Argentina/	15	Iguazú National Park	II
7 ii gentinu	61817	Iguazú Strict Nature Reserve/	Ia
Brazil/	60	Iguaçu National Park/	П
	00		11
Paraguay	97490	M.S. Bertoni Nahuel Huapi National Park	77
Argentina/	97490	Nahuel Huapi Strict Nature Reserve/	II Ib
CT 11			
Chile	90 88	Puyehue National Park Vincente Perez Rosales National Park	II II
Argentina/	7	Lanín National Park	II II
7 ii gentina	61820	Lanin Strict Nature Reserve	Ia
	2497	Lanín Natural Monument	II
	30844	Complejo Islote Lobos	IV
	16875	Chañy Forest Reserve/	VI
Chile	91	Villarrica National Park	П
	10706	Villarica National Reserve	IV
	9418	Huerqueque National Park	II
Argentina/	6	Los Glaciares National Park	II Io
	4329	Los Glaciares Strict Nature Reserve/	Ia
Chile	9414	Bernardo O'Higgins National Park	II
Argentina/	89 16873	Torres del Paine National Park Copahue -Caviahue Provincial Park/	II II
Chile	111	Ñuble Reseserva Nacional	IV

Countries	WCMC Code	Designated Areas	IUCN Category
Bolivia/	20049	Iténez Reserva Fiscal/	VI
Brazil	5126	Guaporé Federal Biological Reserve	Ia
	41090	Baixo Sao Miguel State Extractive Forest	VI
Bolivia/	34028	Pedras Negras State Extractive Forest Eduardo Avaroa National Reserve/	VI IV
			1V
Chile	94112	Liancabur National Park	II
Bolivia/	30043	Los Flamencos National Reserve Sajama National Park	IV II
Bolivia	20030	Sajama Integrated Management Area	"
	20035	Altamachi Vicuña Reserve/	IV
Chile	86	Lauca National Park	п
Cime	9435	Las Vicuñas National Reserve	IV
Bolivia/	98183	Madidi National Park/	II
Peru	7460	Pampas de Heath National Sanctuary	III
Brazil/	101760	Tucumaque Forest Reserve/	VI
Suriname	276	Sipaliwini Nature Reserve	IV
Brazil/	54	Pico da Neblina National Park/	II
	1267	G / L NULL N.C. ID I	.,,
Venezuela Colombia/	4367 9400	Serranía La Neblina National Park La Paya National Park/	<u>II</u>
			l II
Ecuador/	2499 186	Cuyabeño Reserva Faunistica Yasuni/	"
	100	i asum/	VI
Peru	98245	Guepí National Reserve	II
Colombia/	144	Tamá Natural National Park/	II
Venezuela	322	El Tamá National Park	II
	101129	Cerro Machado- El Silencio	VI
Colombia/	30640 19993	San Antonio- Ureña Protected Zone Catatumbo-Bari National Park/	V II
Venezuela	318 20068	Perijá National Park Región Lago de Maracaibo -Sierra de Peri Protected Zone	II V
Eumana	20008	Region Lago de Maracaido -Sierra de 1 em 1 fotected Zone	V
Europe Albania/		Prespa Lake National Park/	
Greece/	674	Prespes National Park/	II
Former Yugoslav Republic of Macedonia	2516	Galichica National Park	II
	1056	Pelister National Park	II
Austria/	102736 103578	Thayatal Protected Landscape Area Thayatal Nature Reserve/	V IV
			·
Czech Republic	30721	Podyjí National Park	II
	4280 61419	Podyji Protected Landscape Area Palava Protected Landscape Area	V
Austria/	01417	Lainsitzniederung Strict Nature Reserve	
	102882	Blockheide Eibenstein Nature Park	V
	5425	Blockheide Eibenstein Nature Reserve	V
		Northern Waldviertel Area/	
Czech Republic	2558	Trebonsko Protected Landscape Area	V
Austria/		Bayerischer Wald, Böhmerwald, Sumava National Park/	Pr
Czech Republic/	4282	Šumava CHKO Protected Landscape Area	V
	26059	Šumava National Park	II
	26059	Sumaveská Raselinisté/	II
Germany	67870	Bayerischer Wald Nature Park Deilanderregion	V
	64659	Böhmerwald Biosphere Reserve	Pr
Austria/	31402	Kalkhochalpen Nature Reserve/	IV
Germany	688	Berchtesgaden National Park	П

Countries	WCMC Code	Designated Areas	IUCN Category
Austria/	1218	Neusiedlersee Nature Reserve	IV
	62709	Neusiedlersee - Seewinkel National Park	II
	102857	Neusiedler See und Umgebung Protected Landscape Area/	V
Hungary	9566	Fertö Hansag National Park	II
Austria/	18769	Donau-Auen National Park	II
	31412	Donau-March Protected Landscape Area	V
	68341	Auen Protected Landscape Area	V
	1220	Marchaven-Marchegg NSG Nature Reserve	Un
	31408	Untere Marchauen Nature Reserve/	IV
Slovakia	19034	Slovakia Zahorie CHKO Protected Landscape Area	V
	12155	Male Karpaty Protected Landscape Area	V
Belarus/	1985	Belovezhskaya Pushcha National Park/	II
Poland	854	Bialowieski National Park	II
Belarus/	1644	Pripiatsky National Park/	Ib
Ukraine	1749	Polessky Nature Reserve	Ia
Belgium/	18950	Hautes Fagnes Eifel Nature Park/	V
Germany	6971	Nordeifel Nature Park	V
		Deutsch-belgischer Naturpark Hohes Vend-Eifel	
Bosnia-Herzegovina/	1055	Sutjeska National Park/	II
Yugoslavia,, FR (Montenegro)	15596	Tara National Park	II
	1051	Durmitor National Park	II
Croatia/	15605	Kopacki Rit Special Reserve	Ia
	15602	Kopacki Rit Nature Park/	V
Hungary	9683	Mohacsi Tortenelmi Emlekhely Nature Conservation Area	IV
Tungury	100798	Duna-Drava National Park	V
Czech Republic/	4275	Protected Landscape Area Labské Pískovce/	V
Germany	32666	Sächsische Schweiz National Park	V
Germany	11800	Sächsische Schweiz Protected Landscape Area	v
Czech Republic/	61421	Luzicke Hory PLA	·
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Germany	20920	Zittauer Gebirge PLA	V
Czech Republic/	645	Krkonoše National Park Protected Landscape Area Iser Mountains/	V
		Totected Landscape Area iser Wouldams	
Poland	852	Karkonoski National Park	II
Czech Republic/	4267	Beskydy Protected Landscape Area/	V
Poland/	12270	Zywiecki Park Krajobrazowy/	V
Slovak Republic	11812	Protected Landscape Area Kysuce CHKO	V
Czech Republic/	12154	Protected Landscape Area White Carpathians/	V
			·
Slovak Republic	12159	Biele Karpaty Protected Landscape Area	V
Denmark/	92491	Waddensea Nature Reserve	
	5762	Vadehavet Wildlife Reserve	IV
	17703 64575	Vadehavet Conservation Area Vadehavet National Nature Area/	V IV
		v adenavet i valionar i valure Area	IV
Germany/	4380	Rantumbecken Nature Reserve	IV
	1541	Nord-Sylt Nature Reserve	IV
	33391	Hosteinische Schweiz Nature Park	V
	32669	Schleswig-Holsteinisches Wattenmeer National Park	V
	11837	Niedersaohsisones Wattenmeer National Park Dollart Nature Reserve	V
	30116 82256	Nordfriesisches Wattenmeer Nature Reserve/	IV IV
			14
Netherlands	64617	Dollard Nature Reserve	
Finland/	12754	Waddensea Area Biosphere Reserve	n/a
Finland/	654	Lemmenjoki National Park/	II
Norway	822	Ovre Annarjakka National Park	II

Countries	WCMC Code	Designated Areas	IUCN Category
Finland/		Kasivarsi Wilderness Area/	
Norway	12297	Reisa National Park Raisdoutterhaldi Protected Landscape Area	II
Finland/		Vätsäri Wilderness Area/	
Norway/	832	Ovre Pasvik National Park & Reserve/	II
Russian Federation	62446	Pasvik Zapovednikovednik	Ia
Finland/	656	Oulanka National Park/	II
Russian Federation	68351	Paanajärvi National Park	II
Finland/	2561	Urho Kekkonen National Park/	IV
Russian Federation	1700	Laplandskiy Zapovednik	Ia
Finland/	1523 102007	Friendship Nature Reserve, Kainou Park Elimussalo Nature Reserve Lehtua Nature Reserve Ulvinsalo Strict Nature Reserve Juortansalo-Lapinuo Protected Mire	Ia IV
	102007	Lososuo-Saarijarvi Protected Mire Iso-Palonen & Maariansarkat Nature Reserve/	IV
Russian Federation	13988	Kostomukskiy Zapovednik (Friendship Nature Reserve)	Ia
Finland/	40928	Perameri National Park/	II
Sweden	30811 1397	Haparanda Archipelago National Park Haparanda-Sandskar Nature Reserve	Pr IV
F /	106872	Haparanda Skärgård National Park	II V
France/	6307	Vosges du Nord Regional Nature Park/	V
Germany	81245	Pfälzerwald Nature Park	
France/	661 10350	Vanoise National Park Vanoise National Park Buffer Zone/	II V
Italy			
France/	718 664	Gran Paradiso National Park Mercantour National Park/	V
Italy	14618	Maritime Alps National Park	V
France/	662 703151	Pyrenees Occidentales National Park Pyrennes Occidentales National Park BZ/	II
Spain	893	Ordessa y Monte Perdido National Park	II
Hungary/	13652	Aggtelék National Park/	II
Slovak Republic	4376	Slovenský Kras CHKO Protected Landscape Area	V
Hungary/	30853	Karancs-Madves Protected Area	V
	680	Bükki National Park/	II
Slovak Republic	14146	Protected Landscape Area Cerová Vrchovina	V
Italy/	15346	Foresta Di Tarvisio Nature Reserve Regional Park Alpi Guilie/	Un
Slovenia	2517	Triglavski National Park	II
Italy/	717	Stelvio National Park/	V
Switzerland	915	Suisse National Park	Ia
Lithuania/	31552	Kursiu Nerija National Park/	II
Russian Federation	68348	Kurshaskayja Kosa National Park	П
Former Yugoslav Republic of Macedonia/	1050	Mavrovo National Park/	II
Yugoslavia, FR (Serbia)		Shara Mountains National Park	
Norway/	829	Rago National Park Tysfjord Hellembotn National Park/	II Pr.
Sweden	905	Padjelanta National Park	П
	906	Sarek National Park	П
	3998	Stora Sjöfallet National Park	V
	30818	Sjaunja Nature Reserve	Pr

Countries	WCMC Code	Designated Areas	IUCN Category
Norway/	826	Femundsmarka National Park	II
	9906	Femundsmarka Protected Landscape Area	V
	833	Gutulia National Park/	II
Sweden	10401	Rogen Nature Reserve	IV
	30816	Rogen-Langfjallet National Park	Pr
		Töfsingdalen National Park	
Norway/	125857	Lunddsneset Nature Reserve/	Ia
Sweden	30821	Tresticklan National Park	
Poland/	848	Tatrzanski National Park/	II
Slovak Republic	1975	Tatranský National Park	II
Poland/	106887	Babiogorski National Park/	II
Slovak Republic	12160	Horná Orava CHKO Protected Landscape Area	V
•	14115	Babia Hora National Nature Reserve	Ia
Poland/	857	Pieninski National Park/	II
Slovak Republic	646	PieninskiyNational Park	II
Poland/	851	Bieszczadski National Park	II
T Oldina	051	Magura National Park	
	67746	E. Carpathian - E Beskeid? Biosphere Reserve/	n/a
Classala Dansalalia /	(7750		/-
Slovak Republic/	67750 12157	E. Carpathians Biosphere Reserve Vychodne Karpaty CHKO Protected Landscape Area/	n/a V
	12137	v ychodne Karpaty CTIKO i fotected Landscape Area	•
Ukraine	1990	Karpatskiy National Biosphere Reserve, Zapovednik	Ia
	1745	Karpatskiy National Nature Park	II
Portugal/	860	Peneda-Geres National Park/	II
Spain	71215	Baixa-Lima-Serra do Xures Natural Park	V
Romania/	28791	Danube Delta Biosphere Reserve	n/a
	31702	Rosca-Buhaiova National Reserve	Ia
	31703	Letea Nature Reserve/	Ia
Ukraine	4814	Dunaiskie Plavni Nature Zapovednik.	Ia
Romania/	11150	Cazanele Forest Reserve/	IV
Yugoslavia, FR (Serbia)	2522	Djerdap National Park	V
Africa			
Angola/	347	Iona National Park	VI
	2251	Mocamedes Parital Reserve/	IV
Namibia	885	Skeleton Coast Game Park	II
Angola/	4493	Mucusso National Park	IV
6		Liuana Partial Reserve/	IV
NT/	7442	W Comini Comp Bosson	377
Namibia/	7442	W. Caprivi Game Reserve/	VI
Zambia	30052	Mamili National Park	II
Angola/	4493	Liuana Partial Reserve/	IV
Zambia	1087	Sioma Ngweze National Park	II
Zamon	4081	West Zambezi Game Management Area	VI
Benin/	597	Boucle de la Pendjari National Park	II
	2253	Pendjari Hunting Zone	VI
	2254	Atakora Hunting Zone/	VI
Burkina Faso	3228	Pama Partial Faunal Reserve	IV
	3226	Arly Total Faunal Reserve	IV
	9264	Arly Partial Faunal Reserve	IV
	4488	Kourtiagou Partial Faunal Reserve	IV
Benin/	12201	"W" du Benin National Park/	II
Burkina Faso/	1048	"W" du Burkina Faso National Park	П
Duikiilä FäSU/	1048 4488	Kourtiagou Partial Faunal Reserve/	II IV
Niger	818	"W" du Niger National Park	II

Countries	WCMC Code	Designated Areas	IUCN Category
Botswana/	7508	Gemsbok National Park/	II
Namibia/	97586	Kalahari Private Reserve/	Un
South Africa	874	Kagalagadi Transfrontier Park (Kalahari Gemsbok National Park)	II
Botswana/		Northern Tuli Game Reserve/	
South Africa/	21174	Vhembe-Dongola Nature Reserve Limpopo Valley National Park/	IV
Zimbabwe	3059	Tuli Safari Area	VI
Burundi/	9161	Kibira National Park/	IV
Rwanda	9148	Nyungwe Forest Reserve	IV
Cameroon/	7110	Lake Lobeke/	Pr
Central African Republic/	31458	Dzanga-Ndoki National Park	II
	31459	Dzanga Sangha Forest Special Reserve/	VI
Republic of Congo	72332	Nouabalé Ndoki National Park	II
Cameroon/	20058	Korup National Park/	II
Nigeria	20299	Cross River National Park	II
Central African Republic/	2261	Yata-Ngaya Faunal Reserve/	IV
Sudan	5090	Radom National Park	II
Côte d'Ivoire/	1295	Mont Nimba Strict Nature Reserve/	Ia
Guinea/	29067	Mont Nimba Strict Nature Reserve/	Ia
Liberia	9176	E. Nimba National Forest	Un
m 0 11/	20175	W. Nimba National Forest	Un
The Gambia/	2290	Niomi National Park/	II
Senegal	866	Delta (Iles) du Saloum National Park	II
Guinea/	29069 29409	Badiar National Park Badiar-Sud Classified Forest/	II Un
Senegal	865	Niokola Koba National Park	II
Kenya/	1297	Maasai Mara National Park/	II
Tanzania	7437	Maswa Game Reserve	IV
	916	Serengeti National Park	II
TZ /	918	Ngorongoro Crater Conservation Area Boni Dodori National Reserve/	VI
Kenya/	2417	Boni Dodori National Reserve/	VI
Somalia	13715	Juba Left Controlled Hunting Area	Un
	872 13710	Lag Badana National Park Bushbush Game Reserve	Pr. VI
	13714	Bushbush Controlled Hunting Area	٧١
Kenya/	19564	Tsavo West National Park/	П
Tanzania	1402	Mkomazi Game Reserve	IV
	7433	Umba Game Reserve	IV
Kenya/	758	Amboseli National Park	II
	7633	Loitokitok Forest Reserve/	Un
Tanzania	922	Kilimanjaro National Park	II
Vonyo/	31593	Kilimanjaro Game Reserve	IV II
Kenya/	760	Mount Elgon National Park/	
Uganda	9179	Sebei Controlled Hunting Area	VI
Malawi/	779	Nyika National Park/	II
Zambia	1102	Nyika National Park	II
Malawi/	4648	Vwaza Marsh Wildlife Reserve/	IV
Zambia	4102	Musalangu Game Management Area	VI
Malawi/	780	Kasungu National Park/	II
Zambia	1088	N Luangwa National Park	II
	1086	S Luangwa National Park	II
	1100	Luambe National Park	II
	1091	Lukusuzi National Park	II

Countries	WCMC Code	Designated Areas	IUCN Category
Mauritania/	9310	Diawling National Park/	II
Senegal	867	Djoudj National Park	II
N 1: /	11653	Gueumbeul Special Faunal Reserve	IV
Mozambique/	4652	Maputo Game Reserve/	IV
South Africa/	116329	Ndumu Game Reserve	II
	39758	Tembe Elephant Park Reserve/	IV
Swaziland		Hlane National Park, Mlawula Nature Reserve	
Mozambique/	20295 800	Limpopo Valley Wildlife Utilization Area – Coutada 16 Zinave National Park	VI II
	799	Banhine National Park/	II
South Africa/	873	Kruger National Park/	п
Zimbabwe Namibia/	1104 8785	Gonarezhou National Park Ai-Ais Hot Springs Game Park	II II
Tvairii <i>Oia</i> /	8783	Fish River Canyon/	n n
South Africa	30851	Richtersveld National Park	П
Rwanda/	863	Volcans National Park/	II
Uganda/	18436	Mgahinga Gorilla National Park	II
	18437	Bwindi Impenetrable Forest National Park/	II
Democratic Republic of Congo (Zaïre)	1081	Virunga National Park	II
	20331	Rutshuru Hunting Zone	VI
Sudan/	904 7933/	Nimule National Park/	II
Uganda	31275	Otze- Dufile Wildlife Sanctuary	IV
	64700	Otze Forest Forest Reserve	Un
C 1 /	3276 1369	Mount Kei White Rhino Sanctuary	IV VI
Sudan/		Kidepo Game Reserve/	VI
Uganda	958	Kidepo Valley National Park	II
Sudan/	10737	Lantoto National Park/	Pr.
Democratic Republic of the Congo (Zaïre)	1083	Garamba National Park	II
**************************************	20036 18438	Mondo Misso Hunting Zone	VI II
Uganda/	9184	Rwenzori Mountains Semliki Controlled Hunting Area	VI
	,10.	Semliki National Park	,,,
		Queen Elizabeth National Park	II
	1446	Kyambura Game Reserve/	II
Democratic Republic of the Congo (Zäire)	1081	Virunga National Park	IV
Zambia/	7692	Lower Zambezi National Park/	II
Zimbabwe	2531	Mana Pools National Park	II
	2524	Charara Safari Area	VI
		Sapi , Chewore, Dande Special Areas	VI
Zambia/	2347 62183	Mosi-oa-Tunya National Park Victoria Falls National Monument/	III
Zimbabwe	1993 2530	Victoria Falls National Park Zambezi National Park	III
Asia	2330	A WHOLKE A WEA	n n
Bangladesh/	4478	Sundarbans W. Wildlife Sanctuary/	IV
6	1.75	,	
India	9960	Sundarbans National Park/	Ia
Bhutan/	7996	Royal Manas National Park	II
		Black Mountain National Park/	
India	1818	Manas Sanctuary	IV
	9232	Buxa Sanctuary	IV
	62663	Buxa National Park	Un

Countries	WCMC Code	Designated Areas	IUCN Category
Brunei Darussalam/	39641	(Labi Hills)	<u>Ia</u>
	(18035)	Labi Hills/ Labi Hills/	V Un
Malaysia	3790 3939	Gading Forest Reserve Gunung Gading National Park	(II)
Brunei Darussalam/	32948 3937	Sungei Ingei Conservation Area Ensengi Forest Reserve/	Ia Un
Malaysia Cambodia/	(787) (12249)	Gunung Mulu National Park Preh Vihear Protected Landscape/	II V
Thailand Thailand		Yot Dom	
Cambodia/	(1415) (68862)	Phanom Dong Rak Wildlife Sanctuary Virachey National Park/	IV II
Laos/	(18872)	Dong Ampham Nature Reserve Nam Kong Nature Reserve Altopeu/	VI Pr Pr
Vietnam	12171	Mom Ray Nature Reserve	IV
China/	95461 95460 96016	Jingpo Lake Nature Reserve Mudan Peak Nature Reserve Changbai Mountains Biosphere Reserve/	II VI n/a
N. Korea/	17908	Paekdu Mountain Nature Protection Area/	IV
Russian Federation	1726	Kedrovaya Pad Zapovednik	Ia
China/	96064	Dalai Lake Nature Reserve/	IV
Mongolia/	93538	Mongul Daguur Strict Protected Area/	Ib
Russian Federation	62684	Daurskiy Zapovednik	Ia
China (Tibet)/	95785 95784	Zhu Feng Nature Reserve Jiang Cun Nature Reserve/	Ib VI
Nepal	804 803	Sagarmatha National Park Langtang National Park	П
	26606	Makalu-Barun National Park	П
China/	26605 96118	Makalu-Barun Conservation Area Ta Shi Ku Er Gan Nature Reserve/	IV Ib
Pakistan China/	95476	Khunjerab National Park Xing Kai Lake Nature Reserve/	II VI
Russian Federation	62691	Khankaiskiy Zapovednik.	Ia
China/	95471	Hunhe Nature Reserve Hong River Nature Reserve/	VI
Russian Federation	1715	Bol'shekhekhtsizskiy Zapovednik	Ia
China (Guangxi)/	95872	Gu Long Mountain Shui Yuan Lin	VI
	95618	Xia Lei Shui Yuan Lin Nature Reserve/	VI
Vietnam China/	10360 99776	Trungkhanh Guan Yin Mountain Nature Reserve	IV
Cinila	95742	Fen Shui Ling Peak Nature Reserve/	VI
Vietnam	10357	Hoang Lien Son #2	IV N
India/	1807 691	Katarniaghat Sanctuary Dhudhwa National Park/	IV II
Nepal	1308	Royal Bardia National Park	П
India/	4578 12414 4543	Valmiki Sanctuary Sohagibarwa Sanctuary Udaipur Sanctuary/	IV IV
Nepal	805	Royal Chitwan National Park	IV
			П
India/	19683	Kachchh Desert Sanctuary/	IV
Pakistan	6684	Rann of Kutch Wildlife Sanctuary	IV

Countries	WCMC Code	Designated Areas	IUCN Category
Indonesia (Kalimantan)/	8673	Gunung Bentang Karimum National Park/	II)
Malaysia (Sarawak)	1300	Lanjak Entimau Wildlife Sanctuary	IV
	12250	Batang Ai National Park	II)
Indonesia/	29966	Wasur National Park/	П
Papua New Guinea	4200	Tonda Wildlife Management Area	VI
	4202	Maza Wildlife Management Area	VI
Kyrgyz Republic/	1675	Besharalsky Zapovednik./	Ia
Uzbekistan	1761	Ugam-Chatkal National Park	Ia
Laos/	18893	Phou Xiang Thong National biodiversity Conservation Area/	VI
Thailand	39518	Pha Tam National Park	(II)
	4674	Kaeng Tana	II)
Laos/	61496	Nam Et National Biodiversity Conservation Area/	VI
Vietnam	10363	Sop Cop Nature Reserve	IV
Laos/	12182	Phou Dene Dinh National Biodiversity Conservation Area/	VI
Vietnam Vietnam	10362	Muong Nhe Nature Reserve	IV
Malaysia (Sabah)/	793	Pulau Penya Park/	II
Philippines	14758	Turtle Island Marine Sanctuary	IV
Mongolia/	93566	Uvs Nuur Basin Strict Protected Area/	Ia
Russia	67722	Ubsunurskaya Kotlovina	Ia
Mongolia/	93579	Khovsgul Nuur National C Park/	II
Russian Federation	68356	Turkinskiy National Park	II

Key to IUCN category field:

Pr proposed protected area

n/a not applicable (as in the case of internationally designated sites, such as biosphere reserves)

Un unassigned (not assigned to a category because the designation/site does not meet IUCN's definition of a protected

area)

blank category not yet assigned (often due to inadequate information)

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