# DRAFT INTERNATIONAL ACTION PLAN FOR THE BLACK-WINGED PRATINCOLE



# Glareola nordmanni

This draft International Action Plan for the Black-winged Pratincole (*Glareola nordmanni*) was commissioned by the Secretariat of African-Eurasian Waterbird Agreement and European Division of BirdLife International, and was prepared by the Russian Bird Conservation Union (BirdLife International Partner Designate in Russia). The first draft was send out to experts on the species and its' conservation, and then discussed on 3<sup>rd</sup> April 2002 at the Workshop on Black-winged Pratincole in Moscow. All comments and suggestions, as well as outputs from the Workshop, are incorporated in this second draft of the Action Plan.

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#### **Summary**

# What is the profile of the Black-winged Pratincole?

Black-winged Pratincole breeds mainly in the steppe and desert belt of Eurasia from Romania and Ukraine in the west to the Russian part of the Altai and to Kazakhstan in the east. It winters in Africa south of the Sahara desert. Migration through the Middle East countries such as Turkey, Iran, Iraq etc. are probably transit / flyover, and take place on the high altitudes; as a result Black-winged Pratincole is seldom recorded in this region. Population decline of Black-winged Pratincole started in the end of 19th century, and became more evident in the second half of the 20th century. In the latest years, starting from 1980s-1990s, strong population decline took place again: in 10 years numbers decreased two to three times. Recently the total population of Black-winged Pratincole hardly exceeds 10,000-15,000 pairs. The Black-winged Pratincole is classified as "data deficient" (BirdLife International, 2000) at global level, and "rare, SPEC 3" at European level (Tucker & Heath, 1994). It is however not included at all in the Red Data Book of Asia, and neither in the list of Globally Threatened Species, probably because of far too optimistic understanding of species numbers The species is listed in Appendix II of the Bonn Convention and of the Bern Convention. Black-winged Pratincole is included in category B2b of the African-Eurasian Waterbird Agreement (AEWA). This requires from all Range States of the Agreement to develop and implement the Action Plan necessary for conservation and restoration of the species population.

## Why an international Action Plan for the Black-winged Pratincole

Because of the dramatic population decline, which happened in the 20th century, Blackwinged Pratincole is now facing the threat of extinction. The reasons for this sharp number decline in the latest decades are not exactly known, therefore it is at the moment difficult to plan certain actions for conservation of the species. The latter is also more complicated because of the nomadic distribution of Black-winged Pratincole, and because of the fact that these birds are changing breeding sites / areas. The urgent need for the Blackwinged Pratincole Action Plan is also driven by the fact that this species is closely associated with the "secondary" man-made habitats, where human activities are very intense.

#### What is the basis of the Action Plan?

The Action Plan is based on the studies and analysis of the Black-winged Pratincole populations, primarily within its' European breeding range (Dementiev, Gladkov 1951, Kistjakovski 1957, Dolgushin 1962, Molodan 1988, 1994, Belik 1994, 1998, 2001, Belik and Tomkovich, 1997, Garmash 1998). This is related to our assumption that it is reproduction period which is an "at most ecological vulnerable" for this species, and that the overall population dynamics depend first of all on the annual breeding success and species productivity. Additional consultations and input into the Action Plan is needed to assess and evaluate the situation in the Asian and African parts of the species range.

#### What is the objective of the Action Plan?

The general objective of the plan is to ensure that population of the Black-winged Pratincole becomes stable or increases as a result of conservation initiatives which take into account habitat requirements of the species (primarily in breeding areas), as well as the interests of local agricultural communities.

#### What does the Action Plan consist of?

The Action Plan presents a framework for conservation and restoration of the Blackwinged Pratincole and its' habitats. Measurable objectives are set at national and international level, taking into account management options for each country.

### Which countries are involved?

Implementation of the Action Plan requires effective international co-ordination of actions. This is especially important for countries holding the main part of the species breeding range (Kazakhstan, Russia, and the Ukraine), and for the wintering range countries (Afrotropical region).

#### What should these countries do?

There should be commitment of all individual Range States for the conservation of Blackwinged Pratincole and its' habitats. All these countries should develop their own National Action Plans. In these Action Plans, management activities should be described, on the basis of the management options that have been presented in this International Action Plan.

# How should the Action Plan be implemented?

A working group under the Technical Committee of the AEWA should be established for implementation of Single Species Action Plans. Activities mandated to the working group are listed in this International Action Plan. The plan should be formally adopted at the Second Session of the Meeting of the Parties to the AEWA, which will take place from 26-29 September of 2002, Bonn, Germany and be reviewed every three years thereafter. In case of emergency situations in population of Black-winged Pratincole, review of the Action Plan should be done immediately.

#### 1. Introduction

Dramatic situation in the population of Black-winged Pratincole *Glareola nordmanni*, which became obvious in the end of the XX century, urges for immediate actions aimed at more effective conservation of this species. It was included in Category 3 of the list of Species of European Conservation Concern (SPEC 3), since it was considered that less than 10,000 pairs breed in Europe (Tucker and Heath, 1994). Rapid population decline, which was observed in southern Russia in 1990s, led here to at least a 10 times decrease of the species numbers. Pronounced number fluctuations were observed in the latest years also in the eastern (Asian) part of the species breeding range. Recently the total population of Black-winged Pratincole unlikely to exceed 10,000-15,000 pairs.

Development and implementation of the International Action Plan is urgently needed to conserve and restore Black-winged Pratincole populations; this Action Plan will enable to involve in the conservation activities all Range States, both on the governmental and non-governmental levels. Only through development of international co-operation for conservation of Black-winged Pratincole these actions to remove threats to the species can be successful. International co-operation is needed for implementation of all the positions of this Action Plan. This co-operation will guarantee effectiveness and positive outputs of the Action Plan.

Table 1
Breeding numbers of Black-winged Pratincole in European Russia
prior to the latest population decline

Region	Number of pairs	Source of information
Krasnodarsky Krai	30-50	Lokhman, 2000
Stavropolsky Krai	300-500	A.N.Khokhlov, pers.comm.
Rostov-on-Don region	1000-3000	Belik et al., 1998
Kalmykia	3000-4000	A.I.Kukish, pers.comm.; Belik et al., 1991
Daghestan	500-1000	Belik, 1998
Volgograd region	100-150	V.F.Chernobai, pers.comm.; Belik et al., 1998
Saratov region	2000-3000	V.N.Moseikin, pers.comm.
In total:	7030-11700	

Table 2
Current breeding numbers of Black-winged Pratincole in Russia (pairs)

Carrett brocaring framisors of Black Wingou Framiosis in Fraesia (pairs)				
Region	Number of pairs	Source of information		
Krasnodarsky Krai	30-50	Lokhman, 2000		
Stavropolsky Krai	100-200	Experts' guestimate		
Rostov-on-Don region	100-300	Experts' guestimate		
Kalmykia	300-500	Experts' guestimate		
Daghestan	300	Dzhamirzoev et al., 2000		
Volgograd region	200-300	Chernobai et al., 2000		
Saratov region	430-500	Piskunov and Belyachenko, 1998		
Orenburg region	1000-2500	Gavlyuk, 1998; L.V.Korshikov, pers.comm.		
West Siberia	250	Experts' guestimate		
In total:	2700-4900			

Current numbers of Black-winged Pratincole (pairs)

Countries	Europe	Asia	Total	Source of information
Hungary	0-2		0-2	Tucker, Heath 1994, Hagemeijer, Blair 1997
Belarus	0-5		0-5	European bird populations 2002
Rumania	0-10		0-10	European bird populations 2002
Ukraine	5-15		5-15	Garmash, 1998
Bulgaria	0-10		0-10	Hagemeijer, Blair 1997
Turkey		0-3	0-3	G. Kirwan, pers.comm.
Armenia		8-10	8-10	BirdLife Database 2002
Azerbaijan		?	?	E.Sultanov, pers.comm
Uzbekistan		1-5	1-5	Å. Kreuzberg-Mukhina, guestimate
Kazakhstan	500-1000	6500-9000	7000-10000	V.Khrokov, guestimate
Russia	1400-2200	1300-2700	2700-4900	Data from the Workshop on BWP
In total:	1900-3200	7800-11700	9700-14900	

Comment: most of birds in Orenburg region inhabit the areas which are geographically in Asian part, thus all the regional population here is considered as "Asian".

Breeding in European countries largely happens as result of invasions to the north and to the west which take place in dry years.

The overall objectives of the Action Plan are:

- In the short-term (3 years)
- 1. To define the main factors affecting population of Black-winged Pratincole in the breeding, migratory and wintering areas and to undertake actions to reduce their negative impact.
- 2. To optimise relationships between man and birds in agricultural habitats, used by the Black-winged Pratincole.
- 3. To ensure that all appropriate actions defined in this Action Plan are undertaken in order to stop further decline of Black-winged Pratincole throughout its' breeding range.
- In the long-term (20 years)
- 1. To save Black-winged Pratincole as a biological species
- 2. To ensure stability of the Black-winged Pratincole population within breeding and wintering range.

To reach successfully these short-term and long-term objectives the following measures have to be undertaken:

- International co-operation between individual experts, governmental and nongovernmental bodies of all species range states must be ensured to guarantee the development and implementation of joint monitoring and research of the Black-winged Pratincole, habitat management, optimisation of land-use in breeding areas of this species, and other relevant activities provided by the Action Plan for the benefit of Blackwinged Pratincole
- Adequate scientific approach to conservation of Black-winged Pratincole and to the use of its' habitats must be guaranteed. These approaches should be based on the sound

research of the species ecology, population dynamics, and on the dynamics of ecosystems vitally important for the survival of the species. Besides, agricultural practices and habitat management activities must be compatible and take into account the needs of all stakeholders, as well as the needs for conservation.

- Adequate legislation for conservation of Black-winged Pratincole should exist and must be implemented / enforced by all Range States
- To develop new mechanisms of international co-operation, including potentially required subsidies for habitat management in areas occupied by Black-winged Pratincole to ensure that no detrimental human activities take place in the areas of breeding, migration stopovers or wintering of this species

The Plan presents operational and measurable objectives, and management options to achieve these objectives. It is a framework to ensure the coherence of and communication about the National Action Plans. The framework leaves room for manoeuvre for the Range States to tune their management policy to the national situation, as long as the objectives are achieved.

The success of the Action Plan depends to a large extent on:

- 1. The support for the implementation of the International Action Plan:
- 2. The efforts of all the Range States to draw up and communicate National Action Plans;
- 3. Implementation aspects such as: a time frame for monitoring and evaluation and for the communication of progress and activities in the different Range States, insight into budgetary consequences;
- 4. Organisational matters such as: a clear vision on the role of the African-Eurasian Waterbird Agreement (AEWA) Technical Committee to deal with all aspects of implementation of the current Action Plan, and a decision on the potential establishment of a new working group in this committee.

The Plan applies for a period of 3 years, after which it will be evaluated and reviewed. In case of emergency situations in population of Black-winged Pratincole, review of the Action Plan should be done immediately. Draft Action Plan has to be discussed at the Technical Committee meeting of the AEWA Range States, and then agreed upon at the next AEWA Meeting of the Parties. Working Group on Black-winged Pratincole and other threatened steppe waders has to be established and operate under the AEWA Secretariat (or leading role delegated to one of the bodies of Black-winged Pratincole range states)

### The geographical scope of Black-winged Pratincole

<b>Countries of Breeding</b>	Countries of Migration	Countries of Wintering
Armenia	Bahrain	Angola
Azerbaijan	Chad	Botswana
Belarus	Cyprus	Burundi
Bulgaria	Egypt	Congo, The Democratic republic of the
France	Eritrea	Côte d'Ivoire
Germany	Ethiopia	Gabon
Hungary	Iran, İslamic Republic of	Ghana
Kazakhstan	Iraq	Kenya
Moldavia	Israel	Mali
Romania	Jordan	Mauritania
<u>Russia</u>	Lebanon	<u>Namibia</u>
Syria	Nigeria	Rwanda
Turkey	Oman	Sâo Tomé e Principe
<u>Ukraine</u>	Qatar	South Africa
Uzbekistan	Saudi Arabia	Tanzania
	Seychelles	Togo
	Somalia	Uganda
	Sudan	Zambia

Syria Turke	
Yeme	Arab Emirates

Comment: highlighted (bold & underline) are the countries holding the most of breeding or wintering birds

Vagrant Black-winged Pratincoles have been recorded in 21 European country up to Spain, Ireland and Iceland, which is probably related to peculiarities of migration in this species: it is considered that migrating birds use quickly moving air currents in the upper layers of the atmosphere

# 2. Biological Assessment

General information	The Black-winged Pratincole ( <i>Glareola nordmanni</i> ) is a small Palearctic wader, one of the representatives of the specific <i>Glareolidae</i> wader family. It breeds in the steppe and desert belt of Eurasia, and winters in Afro-tropical region. Black-winged Pratincoles prefer to breed on dry salted soils ("solonets" and "solontchak") with low vegetation cover and patches of bare ground, and on overgrazed steppe pastures. It avoids steppes with high vegetation. Sometimes inhabits arable land (ploughed fields). Often feeds in the air, catching flying insects.
Population development	<ul> <li>Population decline which is observed since the end of 19<sup>th</sup> century probably caused by the extensive ploughing of virgin steppes for development of arable agriculture</li> <li>Extremely sharp decline was recorded in the middle of the 20<sup>th</sup> century; it was more dramatic in the western and northern parts of the species breeding range</li> <li>In the second half of the 20<sup>th</sup> century numbers of Black-winged Pratincole became locally stable or even increased, which was presumably related to the irrigation of steppes</li> <li>In 1990s population again started to decline sharply; it is most expressed in the south of Russia</li> </ul>
Distribution throughout the annual cycle	<ul> <li>Breeding range of the species stretches throughout the steppe zone of Eurasia from Romania and Ukraine in the west to the Russian Altai and Kazakhstan in the east. Irregularly the species is recorded on breeding further north, in the forest-steppe zone. In the north of the desert zone locally forms large colonies in the valleys and in the river deltas</li> <li>Winters in savannahs of the Southern and South-West Africa</li> <li>Transit migrations through the countries the Middle East and the Arabic Peninsula are almost inconspicuous; however migrations are well expressed in Africa close to the Equator.</li> </ul>
Productivity	<ul> <li>Very low. From 60% to 100% of clutches and chicks die annually because of:</li> <li>Trampling of nests and chicks by grazing cattle</li> <li>Increased predator pressure, namely by corvids</li> <li>Predation by terrestrial mammals which varies from year to year depending on availability of other food sources</li> <li>Heavy rains and hailstorms</li> <li>Severe droughts</li> </ul>

Habitat	Breeding habitat:	Winter habitat:	Habitat on passage:
requirements	Brocumy nabitat.	willer Habitat.	Habitat on passage.
	Pastures in steppes with low vegetation and salted soils (solontchaks and solonets), usually close to water bodies which are used as watering places for cattle  Locally breeds of ploughed fields; there regular cultivation takes place in summer  Avoids places with high vegetation cover, therefore lower grazing pressures leading to restoration of vegetation cover are unfavourable for the species	Grasslands savannahs with high population densities of insects: locusts, ants, and beetles, which become abundant during their mass dispersal season	Specific features unknown. Presumably high-altitude migration takes place.
	Similar unfavourable consequences are observed with increased climate humidity, leading also to development of higher and more dense vegetation		
Life history	Breeding:	Feeding:	Migration:
Life History	Breeds in steppe and desert belts of Eurasia, mainly in Russia and in Kazakhstan, in the vicinity to watering places  Negatively affected in summer by pronounced weather changes such as severe rains, hailstones, droughts  Clutch size 3-4 eggs  Mortality on breeding (clutches, chicks) may reach 60-100% annually	Insectivorous bird, feeding on beetles, ants, grasshoppers, locusts etc.  In spring often feeds close to colonies on patches of bare ground  In summer catches insects in the air, flying on lower altitudes over ground or over the water  In the end of summer usually feeds in flocks high in the air, catching abundant insects  In wintering areas feeds on locusts and other flying insects  Requires water for drinking, and during the day makes regular flights to water bodies	Wintering areas located in Southern and South-West Africa  Areas / sites of regular stopovers where large numbers could be observed are UNKNOWN.

## Knowledge on Black-winged Pratincole in the breeding range

This quality of knowledge on Black-winged Pratincole has to be assessed during the Workshop to define the priority areas for targeted research and monitoring which is needed to reach the objectives of this Action Plan. Preliminary information for each country is suggested on the basis of available literature. 0 – no data; 1 – very little data; 2 – qualified guesses; 3 – good quantitative knowledge

Country	PopSize	Distribution	Time present	Habitat use	Key negative factors
Azerbaijan	1	1	1	1	0
Belarus	1	1	2	1	1
Hungary	2	2	2	2	1
Kazakhstan	1	1	2	2	2
Romania	2	2	2	2	1
Russia	1	2	3	3	3
Ukraine	2	2	2	2	2

#### 3. Human Activities

This chapter gives an overview of human activities potentially affecting the Black-winged Pratincole population and their relevance by country

#### Overview on human activities / threats related to the Black-winged Pratincole

Human activities potentially affecting the Black-winged Pratincole population can be subdivided into three categories:

- 1. Human activities / threats potentially affecting the Black-winged Pratincole population;
- 2. Human activities / threats affecting the quantity of the habitat, which might change the total size of areas suitable for breeding
- 3. Human activities / threats affecting the quality of the habitat, such as deterioration and contamination

Relationships between man and Black-winged Pratincole are very complex, as one and the same type of human activities can be simultaneously negative and beneficial. For example, it is considered absolutely essential that grazing must be carried out in Black-winged Pratincole habitats, thus conservation of the species can hardly be done through such measures as establishment of strictly protected natural areas (zapovedniks in the CIS countries). At the same time, overgrazing which is "a tool" to maintain the habitat quality, leads to dramatically low productivity (through clutch and chick mortality caused by trampling). Another example is that by making new water bodies in dry steppe and desert areas (which often coincides with habitat destruction) people at the same time provide the water supply for Black-winged Pratincoles, thus making the area more suitable. Also human activities result in changes in the numbers of predators, mainly corvids, which cause severe predator pressure on the colonies of ground-nesting Black-winged Pratincoles. All these "pro and contra" have to be considered before planning any certain management actions for this species in the whole range, as well as in certain range states separately (see Chapter 6).

# Human activities potentially affecting the Black-winged Pratincole population

in the countries of breeding range. Symbols so far: 0 - no impact,  $\pm 1 - \text{low impact}$ ,  $\pm 2 - \text{average}$ ,  $\pm 3 - \text{high impact}$ ,  $\pm 4 - \text{critical negative or positive impact}$ 

Factors / Threats	UKR	RUS	KAZ
1. Direct eliminating factors (caused by humans)			
1.1. Hunting	-1	-0,6	0
1.2. Poisoning by pesticides	-1	-1,3	-2
1.3. Destruction of nests by cattle	-4	-2,6	-3
1.4. Destruction of nests by agrotechnics	-1	-2,5	0
1.5. Disturbance	-4	-2,0	-2
2 Indirect – quantity limiting factors			
2.1. Ploughing of steppes	-1	+0,5	-0,7
2.2. Artificial afforestation	-1	-0,9	0
2.3. Construction of reservoirs, ponds and other water bodies	+2	+1,9	+1
2.4. Construction of roads	-1	-0,7	-0,7
3. Indirect – quality limiting factors			
3.1. Use of pesticides	-2	-1,5	-2
3.2. Stopped grazing and overgrowing of pastures	+4	-2,5	0
3.3. Spread of fallow lands and overgrowing of arable fields	+2	-0,1	-0,3
3.4. Disappearance of water bodies (reservoirs, ponds etc.)	0	-1,0	0

Comment: results of experts' evaluation of the importance of different threats are given in Appendix I.

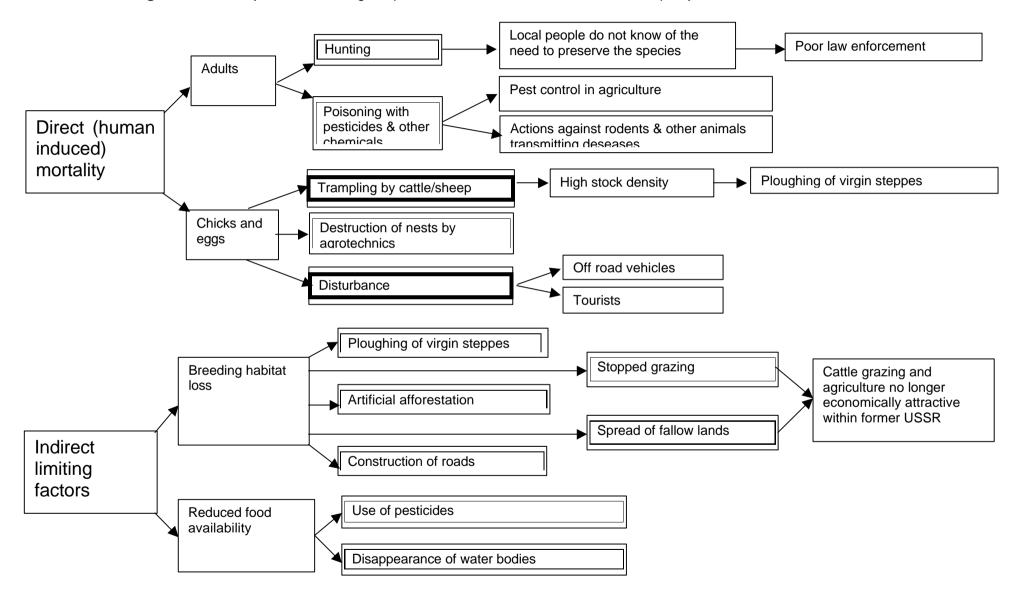
# Overview of threats to the Black-winged Pratincole population and their relevance by country all over the species range

Factors / Threats	Countries of breeding	Countries of wintering	Countries of migration
1. Human direct eliminating factors			
1.1. Hunting			
1.2. Poisoning by pesticides			
1.3. Destruction of nests by cattle		-	-
1.4. Destruction of nests by agrotechnics		-	-
1.5. Disturbance			
2 Indirect – quantity limiting factors			
2.1. Ploughing of steppes			
2.2. Artificial afforestation			
2.3. Construction of reservoirs, ponds and other water bodies	++++	+++	++
2.4. Construction of roads			
3. Indirect – quality limiting factors			
3.1. Use of pesticides			
3.2. Stopped grazing and overgrowing of pastures			
3.3. Spread of fallow lands and overgrowing of arable fields			
3.4. Disappearance of water bodies (reservoirs, ponds etc.)			
4. Natural limiting factors			
4.1. Change of a climate			
4.2. Synoptical anomaly		_	
4.3. Expansion and number increase of preying corvids			
4.4. Influence of ground predators			

5		
Limited relevance	Low relevance	++++ sitive factors

High relevance

# Threats to Black-winged Pratincole (solid frame - high impact; normal - medium; dashed - low impact)



# 4 Policies and Legislation

In this chapter, an overview of relevant national and international policies and nature conservation legislation is given. Legislation regarding transport, agriculture, etc. will not be discussed, although they may have a considerable indirect influence on the Black-winged Pratincole population.

International policies and legislation

Title	Work title	Year	Objective and relevance
Convention on Wetlands of international importance especially as waterfowl habitats	Ramsar Convention	1971	Stem increasing destruction of wetland habitats, by designating wetlands for inclusion on a list of «Wetlands of international importance». Conservation and wise use of these wetlands. Compensate for loss of wetlands. Consultation about implementation of the Convention.
Convention on the Conservation of Migratory Species of Wild Animals	Bonn Convention	1979	Concerted action for the conservation and effective management of migratory species. Consists of two appendices: Appendix I: animals requiring strict protection. Appendix II: animals for which agreements need to be made for the conservation and management these species. AEWA is an example of such an agreement. AEWA stimulates Single Species Action Plans.
Convention on the Conservation of European Wildlife and Natural Habitats	Bern Convention	1979	Conservation of wild flora and fauna and their natural habitats especially those species and habitats whose conservation requires the co-operation of several states. «Special attention be given to the protection of areas that are of importance for the migratory species specified in Appendices II and III (incl. most birds) and which are appropriately situated in relation to migration routes as wintering, staging, feeding, breeding or moulting areas».
EU Council Directive on the Conservation of Wild Birds	EU Birds Directive	1979	Conservation of birds and bird habitats by European co- operation. Establish network of protected areas: Special Protection Areas (SPAs). The Birds Directive laid the foundation for the Habitats Directive.
EU Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora	EU Habitats Directive	1992	Establish strategic network (Natura 2000) of European Habitats and protect the most threatened species in Europe. Implementation behind schedule. Countries have to submit lists of «Special Areas of Conservation (SACs)». Two annexes list habitat types and species. The article 6 obligations of the Habitats Directive also have to be implemented in the Special Protection Areas of the Birds Directive.
Convention on Biological Diversity	Biodiversity Convention	1992	Maintain a sustainable diversity and spread of flora and fauna across the world. Each contracting party shall develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity.
Convention on Desertification ?			Not sure at all this is already signed; to be clarified for Workshop. Might be of high relevance reg. Wintering grounds

NB: The European Directives and international conventions can have different legal implications: the special legal status of EU Directives makes it possible to enforce implementation through the European Court of Justice, whereas the legal implications of conventions depend on their translation into national legislation

# Threat and Convention status for the Black-winged Pratincole Glareola nordmanni

World Status <sup>1</sup>	Europe an Status <sup>2</sup>		EU Birds Directive Annex <sup>3</sup>	Bern Convention Annex <sup>4</sup>	Bonn Conventio n Annex <sup>5</sup>	African-Eurasian Migratory Water Bird Agreement <sup>6</sup>
DD	R	3	I	II	II	B2b 2c

<sup>&</sup>lt;sup>1</sup> World Status as in BirdLife International (2000) Threatened Birds of the World. Spain and Cambridge, U.K.: Lynx Editions and BirdLife International. Categories: C = Critically endangered, E = Endangered; V = Vulnerable; D = Declining; L = Localised; R = Rare; LR = Lower Risk, DD = data deficient, cd = conservation dependent, nt = near threatened, lc = least

The species shall be subjected of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

# National policies, legislation and activities / Countries of breeding range

National policies affecting Black-winged Pratincole	AZE	TUR	ROM	HUN	BEL	UKR	RUS	KAZ	UZB
Species									
Legal protection status in all areas and periods									
Control of pesticide use									
Research									
Regular population census and monitoring									
Public awareness & education									
Habitats									
Site protection									
Site management									
Monitoring (use) of protected sites									
Predator control measures									
Policies to reduce potential agricultural conflicts									
International co-operation									
International monitoring									
Regular meetings to discuss									
	mited s	ianific	ance		Not	applic	able		

nitoring					
s to discuss					
High significance L	imited	signific	ance	Not	applicable

concern, S = Secure.

<sup>2</sup> Tucker G.M & Heath M.F. (1994). *Birds in Europe: their Conservation Status*. Cambridge UK: BirdLife International (BirdLife Conservation series no. 3). R - rare, Status provisional, SPEC category 3 – less than 10,000 pairs.

Give special attention to the protection of areas that are of importance (Article 4) and ensure the special protection of the species (Article 6). For more details see the Convention text <sup>5</sup> Animals for which agreements need to be made for the conservation and management of

these species. For more details see the Convention text

<sup>&</sup>lt;sup>6</sup> B2b 2c – population size unknown (100 000 to 1 000 000), strong decline.

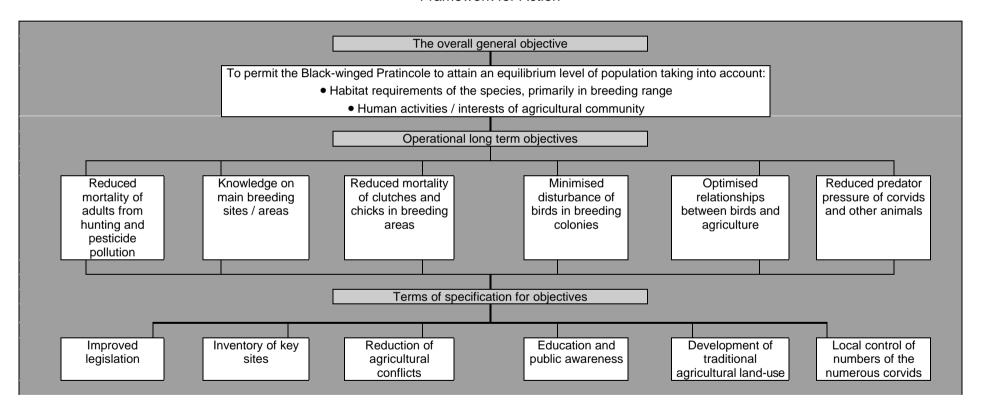
# National policies, legislation and activities (total species range, overview)

National policies affecting Black-winged Pratincole	Countries of breeding	Countries of wintering	Countries of migration
Species			
Legal protection status in all areas and periods			
Control of pesticide use			
Research			
Regular population census and monitoring			
Public awareness & education			
Habitats			
Site protection			
Site management			
Monitoring (use) of protected sites			
Predator control measures			
Policies to reduce potential agricultural conflicts			
International co-operation			
International monitoring			
Regular meetings to discuss			
High significance Limited sig	nificance	Not appl	icable

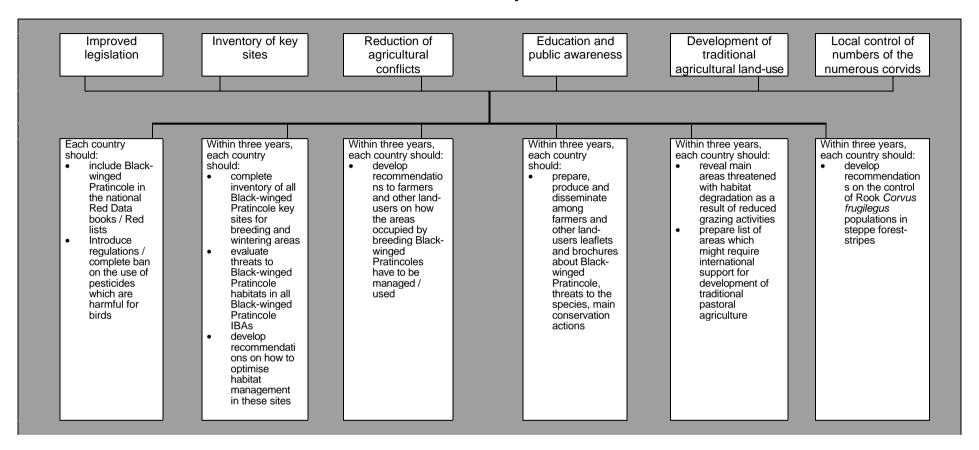
## 5 Framework for Action

All countries of the Black-winged Pratincole breeding and wintering range are responsible for the success of this Action Plan. Without the commitment of the Range States and all interests groups concerned, the Action Plan will remain ineffective. In this chapter the framework of objectives and a list of subjects that need to be taken up in the National Action Plans are presented.

#### Framework for Action



## **Measurable Objectives**



#### All National Action Plans should include:

#### All actions need to have a time frame

- Annual surveys / reviews of geographical distribution, numbers and productivity
- A comprehensive survey of key sites and their protection status
- Survey of / actions to improve existing policies and legislation (See chapter 4)
- Survey of threats / human activities (See chapter 3)
- Overview of present or expected sites of international importance, and threats to these sites (1% of the total population, ≥10 pairs or ≥30 birds)
- Survey of present or expected threats to sites of national importance
- Proposed management options to deal with threats in internationally and nationally important sites (see Chapters 5 and 6)
- Studies on food and feeding ecology in areas of breeding, migration and wintering
- To reveal pesticides which are toxic (harmful) for birds and which are still used locally in agriculture
- Monitoring of population changes, mortality rates, and of changes in food supply related to the use of pesticides
- Identification of all areas important for breeding, migration and wintering
- Identification of key areas for development of environmentally friendly (sustainable) agriculture
- Identification and localisation of «stakeholders» for each of key sites
- Provisions for maintenance of habitat quality / quantity
- Provisions for habitat restoration, where appropriate
- Elaboration and implementation of monitoring and control systems (See chapter 7)
- Identification of financial consequences / responsibilities
- Communication plan (with AEWA, governmental- and non-governmental organisations, and Threatened Steppe Waders Working Group if/when set up)
- Public awareness and training plan
- Regular publication of all new materials on threatened steppe wader species
- Search for financial resources for implementation of the National Action Plan
- Overall expected effects of measures taken

**Action by country** (to be amended and/or filled in during Workshop)

To assist the Range States in developing their own National Action Plans management options and the relation between the national objectives and the international objectives are presented. Priority; H: high, M: medium, L: low

# **Countries of the breeding range**

International	Priority	National management options / actions	Measurable			
objective	,	•	objective ✓ Adequate			
Reduced mortality of adults from hunting and pesticide pollution	M	<ul> <li>Inclusion in (all) National Red data Books. Complete interdiction of a hunt.</li> <li>Legal regulations on pesticide use include Blackwinged Pratincole conservation needs</li> <li>Control and improvements in enforcement of existing nature conservation legislation</li> </ul>	hunting legislation and legislation related to pesticide use in place and enforced			
Knowledge on main breeding sites / areas	Н	<ul> <li>All available published and unpublished information collated and transformed in easy-to-use formats available for decision-making</li> <li>Countries produce national (or joint) reports on the distribution, conservation status, stakeholders etc. of all key sites of Black-winged Pratincole</li> <li>Each country undertakes extensive surveys to assess numbers, distribution, population trends to have best possible knowledge on these issues</li> <li>Monitoring of known colonies with the use or ringing and colour-marking, with attention to breeding outputs and the impact of threats</li> <li>Monitoring of numbers of rodents and terrestrial predators in relation to the breeding performance of steppe waders</li> </ul>	<ul> <li>✓ results of inventory available for decision-makers</li> <li>✓ all key sites known and monitored</li> </ul>			
Reduced mortality of clutches and chicks in breeding areas	Н	<ul> <li>Actions to reduce clutch and chick mortality clarified and widely advertised to farmers / land-users first of all in protected areas</li> <li>Develop and implement system to monitor annual breeding success</li> <li>Applied studies on practical effect of specific actions to protect colonies (clutches and chicks)</li> <li>Management of grazing in protected areas</li> <li>Management of land-use in breeding areas</li> </ul>	<ul> <li>✓ Recommendations to reduce clutch and chick mortality</li> <li>✓ Data of annual breeding success obtained and made available widely</li> </ul>			
Minimised disturbance of birds in breeding colonies	Н	<ul> <li>Ensure adequate management of all breeding colonies</li> <li>Establishment of temporary protected sites (for breeding season) in areas with permanent colonies</li> </ul>	✓ All known breeding colonies receive adequate protection			
Optimised relationships between birds and agriculture	Н	<ul> <li>Reveal main areas threatened with habitat degradation as a result of reduced grazing activities</li> <li>Prepare list of areas which might require international support for development of traditional pastoral agriculture</li> <li>Sustainable and species-friendly management of grazing, land-use and water management in the ways, which are beneficial for breeding colonies of Blackwinged Pratincole</li> </ul>	✓ Overview of needed management actions to optimise relationships between Blackwinged Pratincole and farming activities in breeding areas available			
Reduced predator pressure of corvids and other animals	Н	Local control of predator numbers around breeding colonies, primarily Rooks	Adequate predator numbers around breeding colonies			

Development, endorsement and implementation of National Action Plans	Н	<ul> <li>National Action Plans in place in breeding range countries, and endorsed and implemented at all levels</li> <li>National legislation amended and enforced as provided in the International and National Action Plans</li> <li>To support the international IUCN project "Stratehy and Action Plan for development of sustainable grazing in the steppes of southern Russia" aimed at developing the frame-work and conditions for restoration of traditional land-use practices in semi-arid regions of Russia, and to endeavor that measures for conservation of Black-winged Pratincole and other steppe waders are considered in this project</li> <li>To support the emergency measures for conservation of biodiversity in Central Asia, suggested by WWF, aimed at restoration of wild ungulates as the critically important</li> </ul>	✓ ✓	National Action Plans in place All national bodies committed to implementation
Public awareness and involvement of local stakeholders	Н	<ul> <li>Public awareness materials to be produced and widely distributed</li> <li>Local stakeholders involved in practical on-ground conservation of breeding colonies</li> </ul>	<b>✓</b>	Effective public awareness materials produced and distributed

# **Countries of the wintering range**

International objective	Priority	National management options / actions	Measurable objective
Reduced mortality of adults from hunting and pesticide pollution	Н	Legal regulations on hunting and pesticide use include Black-winged Pratincole conservation needs	Adequate hunting legislation and legislation related to pesticide use in place and enforced
Knowledge on main wintering sites / areas	Н	<ul> <li>All available published and unpublished information collated and transformed in easy-to-use formats available for decision-making</li> <li>Countries produce national (or joint) reports on the distribution, conservation status, stakeholders etc. of all key sites of Black-winged Pratincole</li> <li>Each country undertakes extensive surveys to assess numbers, distribution, population trends to have best possible knowledge on these issues</li> <li>Mid-winter counts and constant monitoring take place in all areas important for Black-winged Pratincole</li> <li>Impact of different threats studied / evaluated</li> </ul>	<ul> <li>✓ results of inventory available for decision-makers</li> <li>✓ all key wintering sites known and monitored</li> </ul>
Optimised relationships between birds and agriculture  Development, endorsement and	Н	<ul> <li>Reveal main threats to wintering habitats of Blackwinged Pratincole</li> <li>Prepare list of areas which might require international support for development of agricultural practices compatible with conservation needs of Black-winged Pratincole</li> <li>National Action Plans in place in all wintering range countries and implemented at all levels</li> <li>National legislation amended and enforced as</li> </ul>	<ul> <li>✓ Data on habitat use / threats to Black-winged Pratincole in wintering areas available</li> <li>✓ National Action Plans in place</li> <li>✓ All national bodies</li> </ul>
implementation of National Action Plans		provided in the International and National Action Plans	committed to implementation
Public awareness and involvement of local stakeholders	Н	<ul> <li>Public awareness materials to be produced and widely distributed</li> <li>Local stakeholders involved in practical on-ground conservation of key wintering sites</li> </ul>	✓ Effective public awareness materials produced and distributed

# Countries of migration / fly-over

International objective	Priority	National management options / actions	Measurable objective
Reduced mortality of adults from hunting and pesticide pollution	М	Legal regulations on hunting and pesticide use include Black-winged Pratincole conservation needs	Adequate hunting legislation and legislation related to pesticide use in place and enforced
Knowledge on possible stopover sites / areas and overall migration patterns	Н	<ul> <li>Overall picture of Black-winged Pratincole migration pattern prepared, assessed, made available to wider audience</li> <li>All available published and unpublished information collated and transformed in easy-to-use formats available for decision-making</li> <li>Countries produce national (or joint) reports on the distribution, conservation status, stakeholders etc. of all key sites of Black-winged Pratincole</li> <li>Each country undertakes extensive surveys to assess numbers, distribution, population trends to have best possible knowledge on these issues</li> <li>Assessment of possible threats to the species on migration &amp; stopovers undertaken</li> </ul>	<ul> <li>✓ results of migration overview available for decision-makers</li> <li>✓ all possible important stopover sites known and monitored</li> </ul>
Development, endorsement and implementation of National Action Plans	М	<ul> <li>National Action Plans in place in relevant migration stopover range countries and implemented at all levels</li> <li>National legislation amended and enforced as provided in the International and National Action Plans</li> </ul>	<ul> <li>✓ National Action Plans in place in relevant countries</li> <li>✓ All national bodies committed to implementation</li> </ul>
Public awareness and involvement of local stakeholders	М	<ul> <li>Public awareness materials to be produced and widely distributed</li> <li>Local stakeholders involved in practical on-ground conservation of key stopover sites (if/when the latter become known)</li> </ul>	✓ Effective public awareness materials produced and distributed

## 7 Implementation

## General preconditions

For the Action Plan to be successfully implemented, agreement on information exchange, communication and monitoring, clarity on necessary financial resources and a realistic time-schedule are a prerequisite. It is most important that individual countries will only consider measures that might affect the population after a consultation process with the other involved countries has taken place. The Technical Committee of the UNEP / AEWA will play a mediating role.

A special working group under the Technical Committee should be established to co-ordinate the implementation of the Black-winged Pratincole Action Plan. In this working group all Black-winged Pratincole Range States and interests groups should be represented. The Range States have a responsibility in monitoring national achievements, and communicating these to the UNEP / AEWA Secretariat with the request to disseminate this to the AEWA Threatened Steppe Waders working group and other Range States. The population model will be a very important instrument in relation to this monitoring. This chapter will describe these essential preconditions for the implementation of the international Action Plan.

## Monitoring

The success of this Action Plan stands or falls with the commitment of countries to monitor the population and habitats, as well as effects of management measures on the species. Only if countries demonstrate this commitment, can proper management decisions be made. All countries are requested to continue and/or initiate a regular population census and monitoring of the population (including productivity/ age ratio censuses) and their habitats, with special attention to monitoring of known regular breeding, stopover and wintering sites. Collected data will be assembled within the BirdLife International World Bird Database and/or Wetlands International IWC (International Waterbird Census framework). The Threatened Steppe Waders working group under the AEWA Technical Committee will be vital in organising this overall monitoring process.

#### **Organisation**

In the organisation structure of the AEWA, the Agreement Secretariat plays a key role. The Agreement Secretariat co-ordinates flows of scientific information and technical advise. It also calls for meetings of the AEWA parties. The Technical Committee falls under the Agreement Secretariat. Article VII, paragraph 5 of the AEWA gives the Technical Committee the possibility to install working groups for special purposes. This article can be used for the establishment of a Threatened Steppe Waders working group.

### Threatened Steppe Waders working group

An establishment of special Threatened Steppe Waders working group under the Technical Committee of the AEWA is suggested for implementation of this Action Plan.

The working group shall, under supervision of the Technical Committee and taking into account the role of the Agreement Secretariat, be mandated to undertake the following activities:

- Co-ordinate and facilitate information exchange between Range States (and between the AEWA and the Range States).
- Collect country data and draft annual reports on the implementation of the Action Plan.
- Assist in and co-ordinate the process of National Action Plan preparation.
- Prepare and submit a review of the Action Plan to the triennial Range States' meeting and to the AEWA.
- Monitor implementation of the Action Plan.

 Organise intermediate meetings with groups of Range States (training, emergency measures, etc.)

The working group will call for an emergency meeting with the Range States when;

- Total population size has declined by more than one third in any period of four or fewer than four consecutive years; or
- Major changes in relevant habitats, or sudden catastrophes occur within the range of the Black-winged Pratincole liable to affect the population further; or

An estimated 12,000 US Dollars minimum is needed annually for the Threatened Steppe Waders working group to perform its tasks (1 principal co-ordinator part-time, plus communication and printing costs, and basic inventory logistics).

The Threatened Steppe Waders working group should consist of a team of several technical advisors. To ensure effective communication between the Technical Committee and the working group, at least one member of the Technical Committee should also participate in the working group.

Detailed Terms of Reference based on the above description of activities will be prepared by the Technical Committee, and endorsed by the Range States before the Threatened Steppe Waders working group will start its work.

The additional value of the Threatened Steppe Waders Working Group is related to the fact that several breeding range states are not yet the parties to AEWA, which might cause some misunderstandings if communication and co-ordination of activities goes directly from the AEWA Secretariat. For pure diplomacy acting through Threatened Steppe Waders Working Group is supposed more appropriate.

#### **Country actions**

In all communication between the Range States (contracting and non-contracting parties) to AEWA, the Agreement Secretariat plays a co-ordinating role. To keep communication lines clear, countries should therefore provide information to the Agreement Secretariat. This is intended to ensure that all parties will get all relevant information. In order to implement the Action Plan, the Range State Countries should commit themselves to at least to the following points:

- Prepare, in co-operation with the working group, and based on chapter 5 and 6 of this International Action Plan a National Action Plan in one year's time.
- Implement this National Action Plan.
- Through the Agreement Secretariat, the working group should be informed about relevant issues in the country.
- Prepare an annual progress report.
- Endorse the Terms of Reference of the working group.
- Endorse this Action Plan.
- Pinpoint focal points, responsible for the communication with the working group and relevant stakeholders in the country.
- Prepare a review of the National Action Plans every three to five years.
- Maintain and further develop adequately funded monitoring programmes to deliver key data.

# Time frame for monitoring, evaluation and communication

Time path ⇒1 <sup>e</sup>	1 <sup>e</sup> year	2 <sup>e</sup> year	3 <sup>e</sup> year	4 <sup>e</sup> year
Actions	AEWA Technical Committee:	<ul><li>↓</li><li>Working group:</li><li>Assist and co-</li></ul>	↓ Working group • Monitor	↓ Working group: • Prepare
	Prepare Terms of Reference for working group     Prepare Action Plan	ordinate National Action Plans  Monitor implementation of the (national and international) Action Plans and prepare annual progress report Facilitate information exchange Organise meetings/training	implementation of the (national and international) Action Plans and prepare annual progress report  Facilitate information ex change  Organise meetings/training	triennial Range States meeting Prepare Action Plan review Monitor implementatio n of the (national and international) Action Plan and prepare annual progress report Facilitate information exchange Organise meetings/traini
	Range States:  • Endorse Action Plan  • Endorse ToR working group	Range States: Prepare National Action Plan Implement National Action Plan Prepare annual progress report Pinpoint national focal point Exchange information	Range States: Implement National Action Plan Prepare annual progress report Exchange information	ng Range States: Implement National Action Plan Prepare annual progress report Exchange information
	$\downarrow$	$\downarrow$	$\downarrow$	<b></b>
Products	Endorsed     Action Plan     Endorsed     working group	<ul><li>National Action Plans</li><li>Annual</li></ul>	<ul> <li>Annual progress report Range States</li> <li>Annual progress report international Action Plan</li> <li>Meetings/training Information exchange</li> </ul>	<ul> <li>Triennial         Range States'         meeting</li> <li>Reviewed         Action Plan</li> <li>Three-year         report Range         States</li> <li>Three year         report internat.         Action Plan</li> <li>Annual         progress         report Range         States</li> <li>Annual         progress         report         international         Action Plan</li> <li>Information         exchange</li> </ul>

# **Terminology**

In this Action Plan, the following definitions have been used:

**Equilibrium population level** = stable level of animal population size, in which birth rate and death rate are equal.

**Habitat** = environment meeting the conditions required by a particular species.

**Natural Habitat** = environment of a particular species, which has not been changed by human interference in the recent history; i.e. virgin steppes and semi-deserts

**Man-made habitat** = man-made environment of a particular species; i.c. farmland.

Range States = (independent) countries within the range in which a particular animal species occurs

**Fly-over countries** = those Range states where bird species only pass by on migration without actually staging for at least several days.

**Wintering grounds** = staging grounds during the winter.

**Key sites** = areas which are essential for the survival of a significant part of the population (conform Ramsar criteria) at any stage of its annual cycle; i.c. for this migratory bird species: breeding grounds, staging areas and wintering sites.

Terminology to be amended during the Workshop and final updating of the draft Action Plan.

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Appendix I: Evaluation of threats significance by different experts

	G.Molodan, the Ukraine	Ka	ızakhs	tan	ء						Russia	a					
Factors / Threats		E.Bragin	G. Eichorn	V.Khrokov	AVERAGE for Kazakhstan	V.Belik	S.Bukreev	A.Davygora	V.Zubakin	M.Koroľkov	L.Korshikov	V.Morozov	V.Moseikin	V.Chernobai	A.Shubin	Anon. (LL?)	AVERAGE for Russia
I. Human direct eliminating factors																	
1.1. Hunting	-1	0	0	0	0	-1	-1	-1	-1	0	0	-1	0	0	-1	-1	-0,6
1.2. Poisoning by pesticides	-1	0	-3	-3	-2	-1	-1	-2	-1	-1	-1	-1	0	-2	-2	-2	-1,3
1.3. Destruction of nests by cattle	-4	-3	-3	-3	-3	-4	-3	-3	-2	-2	-3	-3	-1	-3	-2	-3	-2,6
1.4. Destruction of nests by agrotechnics	-1	0	0	0	0	-2	-3	-3	-1	-2	-2	-4	-4	-3	-1	-3	-2,5
1.5. Disturbance	-4	-2	-2	-2	-2	-3	-3	-3	-2	-1	-2	-1	-1	-3	0	-3	-2,0
! Indirect – quantity limiting factors																	
2.1. Ploughing of steppes	-1	0	-2	0	-0,7	-1	0	+3	0	-1	0	0	+3	0	+1	0	+0,5
2.2. Artificial afforestation	-1	0	0	0	0	-2	-2	0	-2	0	0	-1	0	-2	0	-1	-0,9
2.3. Construction of reservoirs, ponds and other water bodies	+2	+2	0	+1	+1	+2	+2	+1	+1	+3	+1	+2	+4	+2	+2	+1	+1,9
2.4. Construction of roads	-1	0	-1	-1	-0,7	-1	0	0	-1	0	0	0	-3	-1	-1	-1	-0,7
3. Indirect – quality limiting factors																	
3.1. Use of pesticides	-2	0	-3	-3	-2	-1	-2	-2	-1	-2	-1	-2	0	-1	-2	-2	-1,5
3.2. Stopped grazing and overgrowing of pastures	+4	0	-2	+2	0	-3	-2	-3	-2	-3	-2	-3	-2	-2	-2	-3	-2,5
3.3. Spreading of fallow lands, overgrowing of arable fields	+2	+1	0	-2	-0,3	-2	+1	+1	+1	-3	0	0	+2	-2	+2	-1	-0,1
3.4. Disappearance of water bodies (reservoirs, ponds etc.)	0	0	0	0	0	-2	-2	-3	0	-4	0	0	0	0	0	0	-1,0
I. Natural limiting factors																	
4.1. Change of a climate	-1	0	0	0	0	-3	0	0	-2	0	0	0	-2	-2	0	-1	-0,9
4.2. Synoptical anomaly	-3	-1	-1	0	-0,7	-2	-2	-2	-1	0	-1	-1	0	-3	-1	-1	-1,3
4.3. Expansion and number increase of preying corvids	-2	-1	-2	-3	-2	-3	-2	-2	-2	-3	0	-2	-2	-2	-1	-2	-1,9
4.4. Influence of ground predators	-4	-2	0	-2	-1,3	-1	-3	-2	-1	-3	0	-1	-2	-2	-1	-3	-1,7
4.5. Hybridisation and assimilation by the Collared Pratincole	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comment: 0 – no threat; 1 – low impact; 2 – medium impact; 3 – high impact; 4 – critical negative impact; + - positive effect of this factor

# Appendix II: Overview of key sites per Country.

Country	International name	Co-ord	linates	Min	Max	Units	Season	Year	Area (ha)
Russia	Mouth of Yeya river	46,67	38,75	11	11	breeding pairs	breeding	1996	9600
Russia	Salt-lakes in the Primorsko-Akhtarsk area	46,00	38,17	10	20	breeding pairs	breeding	1989	40000
Russia	Beglitskaya sand- spit	47,10	38,57	50	80	adults and juveniles	passage	1997	1414
Russia	Delta of the River Don	47,17	39,42	200	500	adults and juveniles	passage	1997	53800
Russia	Islands in the west part of Lake Manych-Gudilo	46,50	42,55	2	3	breeding pairs	breeding	2001	19200
Russia	Dadynskiye lake	45,27	45,07	80	300	breeding pairs	breeding	1996	45000
Russia	Novokvasnikovski liman	50,53	46,50	5	20	breeding pairs	breeding	1997	300
Russia	Shalkaro- Zhetykolski lake system	50,92	60,83	100	150	breeding pairs	breeding	1996	81250
Russia	Valley of Safarovka river	51,00	48,75	30	40	breeding pairs	breeding	1997	2500
Russia	Varfolomeyevskiye saltmarshes	50,00	48,20	46	46	breeding pairs	breeding	1997	2800
Russia	Borisoglebovka (Saratov [Semenovski] Zakaznik)	51,00	46,75	30	50	breeding pairs	breeding	1996	35000
Russia	Irendyk ridge	53,33	58,50	12	0	breeding pairs	breeding	1996	150000
Russia	Steppes near Kanavka settlement	50,18	48,40	13	16	breeding pairs	breeding	1998	6400
Russia	The Bolshoy Liman	48,45	45,00	5	5	breeding pairs	breeding	1999	40000
Russia	Bulukhta	49,20	46,10	250	250	breeding pairs	breeding	1998	62500
Russia	Stepnovsky Ugol site	50,00	45,45	28	28	breeding pairs	breeding	1998	40000
Russia	The Sarpinskiye (Sarpa) lakes	47,30	45,15	70	100	breeding pairs	breeding	1999	450000
Russia	The Sosta (Sostinskiye) lakes	45,17	45,47	25	25	breeding pairs	breeding	1998	15000
Russia	The Aike Lake	50,59	61,35	40	100	breeding pairs	breeding	1998	10000
Russia	"Orenburgsky" zakaznik	51,15	57,20	10	20	breeding pairs	breeding	1999	21653
Ukraine	Askania-Nova Biosphere Reserve	46,45	33,87	0	0	unset	unknown	1995	33307
Romania	Danube Delta and Razelm-Sinoe complex	44,93	29,20	10	0	adults and juveniles	unknown	1996	442000
Armenia	Armash fish-farm	39,75	44,77	8	10	breeding pairs	breeding	0	2795
Turkey	Bulanik plain	39,17	42,23	1000	1000	adults and juveniles	passage	1989	8000
Ethiopia	Baro river	8,33	33,62	500		adults and juveniles	winter	1970	
South Africa	Amersfoort-Bethal- Carolina District	- 26,53	29,83	100	1000	adults and juveniles	winter		120000

South Africa	Chrissie Pans	- 26,32	30,25	5000	5000	adults	winter		62500
						and juveniles			
South Africa	Grassland Biosphere Reserve (proposed)	- 27,25	30,02	1000	5000	adults and juveniles	winter		1050000
South Africa	Nyl River Flood- plain	- 24,65	28,70	180	500	adults and juveniles	winter		16000
Botswana	Lake Ngami	- 20,50	22,62	10000	10000	adults and juveniles	winter	1989	25000
Botswana	Linyanti Swamp/Chobe River	- 18,05	24,38	100	300	adults and juveniles	winter		20000
Botswana	Makgadikgadi Pans	- 20,75	25,50	5000	5000	adults and juveniles	winter		1200000
Botswana	Okavango Delta	- 19,42	22,75	2000	2000	adults and juveniles	winter		1900000
Namibia	Bushmanland (Tsumkwe) Pan System	- 19,62	20,62			unset	winter		120000
Namibia	Eastern Caprivi Wetlands	- 18,83	23,75	500	1000	adults and juveniles	winter		468000
Namibia	Etosha National Park	- 18,98	15,75	200	300	adults and juveniles	winter		2291200
Namibia	Mahango Game Reserve and Kavango River	- 18,30	20,62	200	300	adults and juveniles	winter		24462
Tanzania	Serengeti National Park	- 2,42	34,83	120	120	adults and juveniles	winter		1476300
Tanzania	Usangu flats	- 8,50	34,25	150	150	adults and juveniles	winter		300000
Uganda	Kidepo Valley National Park	3,82	33,80			unset	winter		144200
Uganda	Murchison Falls National Park	2,25	31,67			unset	winter		39000
Uganda	Queen Elizabeth National Park and Lake George	- 0,17	30,00			unset	winter		223000
Zambia	Kafue flats	- 15,75	27,27	100	100	adults and juveniles	non- breeding		600000
Zambia	Liuwa Plain National Park	- 14,53	22,62	20000	100000	adults and juveniles	passage		366000
Angola	Luando Strict Nature Reserve	- 10,68	17,37			unset	passage		828000

# Appendix III: All references for Action Plan

- I AM NOT SURE THESE ARE NEEDED, when the key references are in. Besides just single citations most of them are just extra-space even not referred at all in the whole text. Sorry. Suggest only KEY REFERENCES are included, as above, while the list below is deleted. Or only those which are indeed needed for the <u>ACTION</u> Plan left. LL.
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