1. Species information

1.1 Member State Hungary
1.2 Species code A875
1.3 EURING code 820

1.4 Species scientific name Microcarbo pygmaeus

1.5 Subspecific population

1.6 Alternative species scientific name

1.7 Common name kis kárókatona 1.8 Season Winter (W)

2. Population size

2.1 Year or period

2.2 Population size

2.3 Type of estimate

2.4 Population size Method used

2.5 Sources

2013-2018

a) Unit number of individuals (i)

b) Minimum 500c) Maximum 1300

d) Best single value

Best estimate

Complete survey or a statistically robust estimate

Magyar Vízivad Közlemények

Hungarian Waterfowl Monitoring Database (http://vadgazdalkodas.emk.uni-sopron.hu/content/index/id/3955)

2.6 Change and reason for change (since previous report)

No change

The change is mainly due to:

2.7 Additional information

The wintering population of the species was not reported in 2013. January counts of the Waterbird Monitoring between 2013-2018: the minimum count was 467, the maximum count was 1140. Coverage is not complete, but it is assumed that the majority occur at monitored wetlands. A rounding-up estimate was made to account for the unmonitored part of the wintering population.

3. Population trend

3.1 Short-term trend (last 12 years)

3.1.1 Short-term trend Period

3.1.2 Short-term trend Direction

3.1.3 Short-term trend Magnitude

2007-2018

Fluctuating (F)

- a) Minimum
- b) Maximum
- c) Best single value

3.1.4 Short-term trend Method used

3.1.5 Sources

Complete survey or a statistically robust estimate

Magyar Vízivad Közlemények

Hungarian Waterfowl Monitoring Database (http://vadgazdalkodas.emk.uni-sopron.hu/content/index/id/3955)

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3.2 Long-term trend (since c. 1980)

- 3.2.1 Long-tern trend Period
- 3.2.2 Long-term trend Direction
- 3.2.3 Long-term trend Magnitude
- 2001-2018 Increasing (+)
- a) Minimum
- b) Maximum
- c) Best single value 9350
- 3.2.4 Long-term Trend Method used
- 3.2.5 Sources

3.3 Additional information

Complete survey or a statistically robust estimate

Magyar Vízivad Közlemények

Hungarian Waterfowl Monitoring Database (http://vadgazdalkodas.emk.uni-sopron.hu/content/index/id/3955)

First breeding (after an absence of nearly a century) in the late 1980s, but only established in early 1990s with a permanent population. Wintering was not typical in the 1990s. The Hungarian Waterfowl Monitoring began to collect data for the species in 2000/2001, and the 2001 January figure (8 individuals) was used to calculate trend by comparing it to the mean (756) of the figures in the Hungarian Waterfowl Monitoring Database for the January counts of 2013-2018 (873, 1140, 621, 824, 612, 467) to provide the best single value.

4. Breeding distribution map and size

- 4.1 Sensitive species
- 4.2 Year or period
- 4.3 Breading distribution map No
- 4.4 Breading distribution

surface area

- 4.5 Breading distribution Method used
- 4.6 Additional maps
 - Additional maps
- 4.7 Sources
- 4.8 Additional information
- No

No

5. Breeding range trend

5.1 Short-term trend (last 12 years)

- 5.1.1 Short-term trend Period
- 5.1.2 Short-term trend Direction
- 5.1.3 Short-term trend Magnitude
- a) Minimum
- b) Maximum
- c) Best single value
- 5.1.4 Short-term trend Method used
- 5.1.5 Sources

5.2 Long-term trend (since c. 1980)

- 5.2.1 Long-term trend Period
- 5.2.2 Long-term trend Direction
- 5.2.3 Long-term trend Magnitude
- a) Minimum
- b) Maximum
- c) Best single value

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5.2.4 Long-term trend Method used

5.2.5 Sources

5.3 Additional information

6. Progress in work related to international Species Action Plans (SAPs), Management Plans (MPs) and Brief Management Statements (BMSs)

to international SAPs, MPs and BMSs (section 6) be provided for the other season for this species?
6.1 Type of international plan
6.2 Has a national plan linked to the intarnational SAP/MP/BMS been adopted?

6.0 Is/Will the information related

No

Species Action Plan (SAP)

No

6.3 If 'NO', describe any measures and initiatives taken related to the international SAP/MP/BMS
6.4 Assessment of the effectivess of SAPs for globally threatened

species (Art. 12, Species Action Plans)

The most important actions implemented in Hungary (with code numbers of thinternational species action plan): 1.2.3, 1.2.4, 2.1, 2.2, 2.3, 3.1, 3.4, 4.1

moving towards the plan's aim/objective(s) (towards)

6.5 Assessment of the effectivess of MPs for huntable species in non-Secure status (Articles 3 and 7, Management Plans)

()

6.6 Sources of further Information

Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pi Vértes Közalapítvány, Csákvár. p. 498-501.

7. Main pressures and threats a) Pressure b) Ranking c) location Abstraction of water, flow diversion, dams and other inside the Member State (inMS) Н modifications of hydrological conditions for freshwater aquaculture (G20) Illegal shooting/killing (G10) inside the Member State (inMS) Н Modification of hydrological flow or physical alteration of water inside the Member State (inMS) bodies for agriculture (excluding development and operation of dams) (A33) Droughts and decreases in precipitation due to climate change Н inside the Member State (inMS) (N02)

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a) Threat	d) Ranking	e) location
Abstraction of water, flow diversion, dams and other modifications of hydrological conditions for freshwater aquaculture (G20)	Н	inside the Member State (inMS)
Illegal shooting/killing (G10)	Н	inside the Member State (inMS)
Modification of hydrological flow or physical alteration of water bodies for agriculture (excluding development and operation of dams) (A33)	Н	inside the Member State (inMS)
Droughts and decreases in precipitation due to climate change (NO2)	Н	inside the Member State (inMS)

7.2 Sources of information

Szinai P. (szerk.) (2013): Kis kárókatona fajmegőrzési terv. Unpublishec Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértes Közalapítvány, Csákvár. p. 498-501. Bíró, I. (2016): Terepi madárhatározó halgazdálkodóknak. Magyar Madártani és Természetvédelmi Egyesület, Budapest. p. 8-9.

7.3 Additional information

8. Main Conservation Measures

8.1 Status of measures	Measures identified and taken
8.2 Main purpose of the measures taken	Restore the habitat of the species

8.3 Location of the measures Both inside and outside Natura 2000

8.4 Response to the measures Short-term results (within the current reporting period, 2013-2018)

8.5 List of main conservation measures

CA15 - Manage drainage and irrigation operations and infrastructures in agriculture

CG04 - Control/eradication of illegal killing, fishing and harvesting

CG10 - Manage water abstraction and modifications of hydrological conditions for freshwater aquaculture

CJ03 - Restore habitats impacted by multi-purpose hydrological changes

CS03 - Improvement of habitat of species from the directives

8.6 Additional information Hara

Haraszthy L. (szerk.) (2014): Natura 2000 fajok és élőhelyek Magyarországon. Pro Vértes Közalapítvány, Csákvár. p. 512-514.

9. Natura 2000 (SPAs) coverage

9.1 Population size inside the Natura 2000 (SPA) network

a) Unit number of individuals (i)

b) Minimum 350 **c) Maximum** 1170

d) Best single value

9.2 Type of estimate

Best estimate

9.3 Population size inside the network Method used

Based mainly on expert opinion with very limited data

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9.4 Short-term trend of population size within the network Direction

9.5 Short-term trend of population size within the network Method used

9.6 Additional information

Fluctuating (F)

Based mainly on expert opinion with very limited data

Expert estimate is 70% of the minimum wintering population and 90% of the maximum wintering population is in SPAs.

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