State of Animal Genetic Resources and their conservation

Modul no. 2: Conservation and Sustainable Use of Animal Genetic Resources Nina Moravčíková Slovak University of Agriculture in Nitra Faculty of Agrobiology and Food Resources

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European Union

- Global database of AnGR (DAD-IS, FAO) contains information about more than 8800 breeds of 38 species of domesticated animals:
 - 6916 local breeds
 - 1081 transboundary breeds
 - 521 regional
 - 560 international
 - Africa, Asia, Europe and Caucasus, Latin America and Caribbean, Near and Middle East - local breeds more than 2/3 of all breeds
 - International transboundary breeds of avian and mammalian species dominate the Pacific Southwest and North America
 - Regional transboundary mammalian breeds are relatively abundant in Europe and the Caucasus, in Africa and to a smaller extent in Asia



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- The first AnGR report 2007, FAO, Commission on Genetic Resources for Food and Agriculture
 - The second AnGR report 2015, FAO, Commission on Genetic Resources for Food and Agriculture
 - state of diversity (degree of utilisation, conservation, etc.)
 - state of national capacities for the management of AnGR (legislation, breeding programmes, etc.)
 - state of the art (methodologies, technologies, etc.)
 - starting points for the development of new programmes and strategies for AnGR conserving

Figure source: FAO. 2015. The Second Report on the State of the World's Animal Genetic Resources for Food and Agriculture, edited by B.D. Scherf & D. Pilling. FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome (https://openknowledge.fao.org/items/caad86d2-69d9-482c-afe6-560eef2bf00c)

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Global Action Plan

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- 4 strategic priority areas:
- 1) Description, inventory and monitoring of trends and associated risks
- 2) Sustainable use and development
- 3) Conservation
- 4) Legislative actions and regulations, institutions and capacity building

Figure source: FAO. 2007. Global Plan of Action for Animal Genetic Resources and the Interlaken Declaration. FAO Commission on Genetic Resources for Food and Agriculture Assessments. Rome (https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/453629/)









- DAD-IS: Domestic Animal Diversity Information System, FAO
 - started in 1996
 - publicly accessible database
 - storage of national AnGR data through a network of national coordinators
 - communication, data and knowledge sharing





Food and Agriculture Organization of the United Nations

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Domestic Animal Diversity Information System (DAD-IS)

h Data In Focus Publications National Coordinators Regional/National Nodes

DAD-IS is the Domestic Animal Diversity Information System maintained and developed by FAO. It provides you with access to searchable databases of breed-related information and photos and links to other online resources on livestock diversity. Furthermore you can find the contact information of



Figure source: https://www.fao.org/dad-is/en/

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- When and why are AnGR populations threatened by loss of diversity?
 - actual/effective number of individuals
 - intensity of population size decrease
 - relatedness of individuals within the population
 - geographic range and intensity of decline
 - rapid changes in environmental conditions including weather, health situation,...





- Status of breeds based on their vulnerability to loss of diversity
 - FAO criteria:
 - Extinct
 - Cryo-conserved
 - Critical
 - Endangered
 - Vulnerable
 - Not at risk
 - EAAP criteria:
 - Critical
 - Endangered
 - Minimally endangered
 - Potentially endangered
 - Not at risk





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• Extinct

- there are no breeding males or females
- even if genetic material has been preserved which would allow the breed to be restored, the breed is nevertheless classified as extinct
- if countries have breeds that have no live animals but have genetic material stored in a gene bank, it is recommended that the DAD-IS indicate that they have an active cryopreservation programme. FAO can then categorise such breeds as cryo-conserved.



Critical

- the total number of dams is lower than or equal to 100 (300 in the case of species with low reproductive capacity) and the number of sires is 5 (i.e. ΔF is 3% or more)
- the total population size is lower than or equal to 80 (240), the population trend is increasing and the proportion of purebred females is higher than 80 %
- the total population size is lower than or equal to 120 (360) and the population trend is either stable or decreasing or the proportion of purebred breeding females is equal to or lower than 80 %
- the level of genetic variability is lower compared to the ancestral generation



Endangered

- the total number of dams is higher than 100 (300 for species with low reproductive capacity) and lower than or equal to 1 000 (3 000) and the total number of sires is lower than or equal to 20 and higher than 5 (i.e. Δ F is between 1 and 3%)
- the total population size is higher than 80 (240) and lower than 800 (2400) and its size is increasing and the percentage of purebred females is higher than 80 %
- the total population size is higher than 120 (360) and lower than or equal to 1 200 (3 600), or the trend is stable or decreasing and the proportion of purebred breeding females is equal to or lower than 80 %



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Vulnerable

- the total number of dams is between 1000 and 2000 (3000 and 6000 in the case of species with low reproductive capacity) and the number of sires is between 20 and 35 (i.e. Δ F is between 0,5 and 1%)
- the total population size is higher than 800 (2400) and lower than or equal to 1600 (4800) and the proportion of purebred breeding females is increased, is higher than 80 %
- the total population size is higher than 1200 (3600) and lower than or equal to 2400 (7200), but the proportion of breeding females (equal to or less than 80%) is decreasing



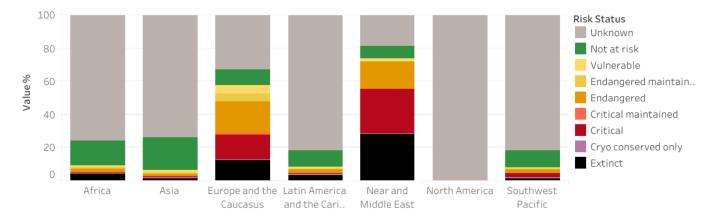
Not at risk

- the status of the population is known and the breed does not fall into the category of critically endangered or endangered (including relevant subcategories) or vulnerable
- a breed may be considered not to be endangered even if the exact population size is unknown, as long as the existing knowledge is sufficient to state with certainty that the population size exceeds the relevant thresholds for the vulnerable category
- nevertheless, it is strongly recommended to conduct monitoring of population to obtain a more accurate estimate of the population size
- Unknown: population monitoring is needed; breed may be critically endangered, endangered or vulnerable





• Endangered status of local breeds by region (DAD-IS)



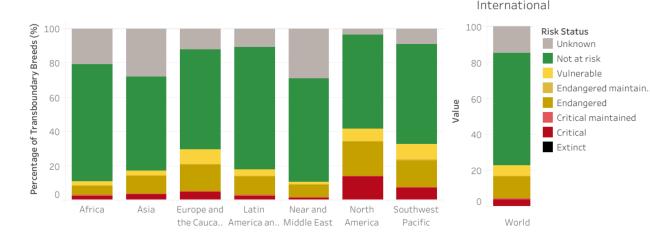
DADIS Regions Grand Total urope and Near and Middle Eas the Africa North merica Southwe Asia Unknown Not At Risk Vulnerable Endangered-Maintained Endangered Critical-Maintained Critical Cryo Conserved Only Extinct





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• Endangered status of transboundary breeds by region (DAD-IS)



International

	Africa	Asia	Europe and the	Latin America	Near and Middle	North America	Southwe st Pacific		
Unknown	124	126	176	75	11	4	25	Unknown	377
Not At Risk	168	124	229	166	24	99	129	Not At Risk	316
Vulnerable	15	13	71	22	1	14	26	Vulnerable	79
Endangered Maintain	0	0	0	0	0	0	0	Endangere	0
Endangered	32	36	158	56	1	42	55	Endangered	188
Critical Maintained	0	0	0	0	0	0	0	Critical Mai	0
Critical	15	21	65	24	1	30	28	Critical	96
Extinct	3	0	5	1	0	0	1	Extinct	10

ISAGREED?



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State of AnGR in Slovakia

Mammals

Country Name Slovakia

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Mammalian, Local mammalian breeds

Mammalian, Regional transboundary mammalian breeds

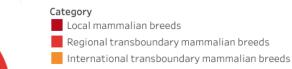
Mammalian, International transboundary mammalian breeds

Species	Breed	Transboundary Name	Animal class	Local mammalian breeds	Regional transboundary mammalian breeds	International transboundary mammalian breeds	Rabb
Cattle	Aberdeen Angus	Aberdeen, Angus	Mammalian				
	Beef Simmental	Simmental	Mammalian				
	Blonde D'aquitaine	Blonde D'aquita	Mammalian				
	Červené holsteins						
	Charolais	Charolais	Mammalian				
	Galloway	Galloway	Mammalian				
	Hereford	Hereford	Mammalian				
	Highland	Highland	Mammalian				
	Holsteinské	Holstein (black	Mammalian				
	Limousine	Limousin	Mammalian				
	Piemontese	Piedmont	Mammalian				
	Slovenský pinzga	Pinzgau	Mammalian				
	Slovenský strakatý	Simmental	Mammalian				
	Swiss Brown	Brown Swiss	Mammalian				
Goat	Alpine	Alpine	Mammalian				
	Anglonubijská	Anglo, Nubian	Mammalian				
	Biela krátkosrstá	White Shorthair	Mammalian				
	Burská	Boer	Mammalian				
	Hnedá kratkosrstá	Brown Shorthai	Mammalian				
Horse	Anglický plnokrvn	Thoroughbred	Mammalian				
	Arabský kôň	Shagya Arab	Mammalian				
	Arabský plnokrvník	Arab	Mammalian				
	Furioso	Furioso,Northst	Mammalian				
	Hafling	Haflinger	Mammalian				
	Hucul	Hutsul	Mammalian				
	Nonius	Nonius	Mammalian				
	Norik muránskeho	Noric	Mammalian				
	Slovenský športov	-	Mammalian				
	Slovenský teplokr	Slovak Warmbl	Mammalian				
Pig	Biela mäsová		Mammalian				
	Biele usl'achtilé	Large White	Mammalian				
	Duroc	Duroc	Mammalian				
	Hampshire	Hampshire	Mammalian				
	Landras	Landrace	Mammalian				
	Pietrain	Pietrain	Mammalian				
	Slovak meat	-	Mammalian				
	Yorkshire	Large White	Mammalian				

Angora	Angora	Mammalian		
Belgický obor	Belgian Giant	Mammalian		
Belgický obor albín	Belgian Giant Al	Mammalian		
Burgundský	Burgundy	Mammalian		
Český albín	-	Mammalian		
Činčila malá	Chinchilla small	Mammalian		
Činčila veľká	Chinchilla giant	Mammalian		
Deilenaar	Deilenaar	Mammalian		
Durínsky	Thüringer	Mammalian		
Francúzsky baran	French Lop	Mammalian		
Francúzsky strieb	French Silver	Mammalian		
Havana	Havanna	Mammalian		
Hermelín	Hermelin	Mammalian		
Holandský strakáč	Dutch	Mammalian		
Holíčsky modrý	-	Mammalian		
Hototský biely	White Hotot	Mammalian		
Japonský	Japanese	Mammalian		
Kalifornský	California	Mammalian		
Kastorex	-	Mammalian		
Kuní	Marten	Mammalian		
Liptovský lysko	-	Mammalian		
Líščí	Fox	Mammalian		
Lop of Meissen	-	Mammalian		
Maličký	-	Mammalian		
Nitriansky	-	Mammalian		
Novozélandský bi	New Zealand W	Mammalian		
Novozélandský če	New Zealand Red	Mammalian		
Ohnivák	Tan	Mammalian		
Ruský	Russian	Mammalian		
Rys	Lynx	Mammalian		
Saténový	Satin	Mammalian		
Slovenský sivomo	-	Mammalian		
Trojfarebný strak	Three Colour Sp	Mammalian		
Veľký svetlý strie	-	Mammalian		
Viedenský biely	Weisse Wiener	Mammalian		
Viedenský čierny	Schwarze Wiener	Mammalian		
Viedenský divosfa	Graue Wiener	Mammalian		
Viedenský modrý	Blauer Wiener	Mammalian		
Zajačí	Hare	Mammalian		
Zemplínsky	-	Mammalian		
Zoborský	-	Mammalian		

Askánske merino	Askanian	Mammalian	
Berrichon du Cher	Berrichon Du Ch	Mammalian	
Charollais	Charollais	Mammalian	
Cigája	Tsigai	Mammalian	
lle de France	lle,De,France	Mammalian	
Lacaune	Lacaune	Mammalian	
Merino	Merino	Mammalian	
Oxford down	Oxford Down	Mammalian	
Romanovka	Romanov	Mammalian	
Romney Marsh	Romney	Mammalian	
Suffolk	Suffolk	Mammalian	
Valaška	Valachian	Mammalian	
Vychodofrízska	East Friesian	Mammalian	
Zošľachtená valaš	-	Mammalian	

Sheep







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State of AnGR in Slovakia

Slovakia Chicken Amrokska Amrock Avian Image: Chicken Australorpka	• Avian	Country Name	Species	Breed	Transboundary Name	Animal class	Local avian breeds	Regional transboundary avian breeds	International transboundary avian breeds		
Bantam - Avian • Banteveldeka Barnevelder Avian • Faverolka Faverolle Avian • Faverolka New Hamgshire Avian • Hodvábnička Silkie Avian • Leghorn Brown - Avian • Orzivka Orzvka Avian • Orzivka Orzington Avian • Rodajlendka Rhode Island Red Avian • Rodajlendka Rhode Island Red Avian • Vandotka Wilsummer • • Vandotka Wolsummer • • Vandotka Wanner • • Duck (domestic) Indický běze Indian Runner • Vandotka Pekingskå biela Mvian • Goose (domestic) Landeská Landeská Pomeranian Slovenská biela Slovak Avian •											
Barneveldka Barnevelder Avian Faverolka Faverolle Avian HempSirka Silkie Avian Leghorn Brown - Avian Diravka Oravka Oravka Avian Orpingtonka Orpington Avian Oravka Oravka Avian Badajiendka Rhode Island Red Avian Velsumka Wynouth Rock Avian Velsumka Wynouth Rock Avian Duck (domestic) Indický bežac Indianunar Valontka Wynotthe Avian Image: Avian Duck (domestic) Indický bežac Indianunar Pomoranská Pomeransia Avian Slovenská blela Slovak Avian				Australorpka	Australorp	Avian					
Faverolka Faverolka Faverolka Vian Hempšírka New Hampshire Avian Image: Avian Image: Avian Hodvábnička Silkie Avian Image: Avian Image: Avian Image: Avian Leghorn Brown - Avian Image: Avian <td< td=""><td></td><td></td><td></td><td>Bantam</td><td>-</td><td>Avian</td><td></td><td></td><td></td><td></td><td></td></td<>				Bantam	-	Avian					
HempšírkaNew HampshireAvianHodvábničkaSilkieAvianLeghorn Brown-AvianMifleur-AvianOravkaOravkaAvianOrajustonkaOravkaAvianPlymutkaPlymouth RockAvianRodajlendkaRhode Island Red AvianSussex White-AvianVelsumkaWelsummerAvianDuck (domestic)Indický bežecIndia RunnerAvianIndický bežecIndia RunnerAvianIndický bežecIndia RunnerAvianImdický bežecIndia RunnerBuck (domestic)Indieská bielaAvianPomoranskáPomeranianAvianSlovenská bielaSlovakAvianNoranskáPomeranianAvianPomoranskáPomeranianAvianAvianIndieská bielaSlovakNoranskáAvianImdický bežecSlovenská bielaSlovakAvianAvianImdický bežecPomoranskáPomeranianAvianImdický bežecNoranskáPomeranianPomoranskáPomeranianNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežecNavianImdický bežec <td< td=""><td></td><td></td><td></td><td>Barneveldka</td><td>Barnevelder</td><td>Avian</td><td></td><td></td><td></td><td>Internatio</td><td>nal transboundary avian breeds</td></td<>				Barneveldka	Barnevelder	Avian				Internatio	nal transboundary avian breeds
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Slovenská biela Slovak Avian			Goose (domestic)		Landaise						
Suchovy - Avian					Slovak						
Quail British Range (E e) - Avian			Quail								
English White (W Avian										ALA	*****
Manchurian Golde Avian										Ç Y V	* 7
Tuxedo (E e, Wh+) - Avian											
Turkey Bronzová Bronze Avian Figure source: DAD-IS_2023_https://www.fao.org/dad-is/en/ Image: Source to the source					Bronze	Avian					EEDo

Figure source: DAD-IS. 2023. https://www.fao.org/dad-is/en/

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State of AnGR in Czech repul

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Horse Horse

Category

- Local mammalian breeds
- Regional transboundary mammalian breeds
- International transboundary mammalian breeds

Czechia

Garrier	Breed	Transboundary Name	Animal class	Local mammalian breec	Regional transboundar mammalian breeds	International transbound mammalian breeds	
Species Cattle	Aberdeen Angus	Aberdeen, Angus	Mammalian			_	
cattle	Ayrshire	Ayrshire	Mammalian				
	Belgicke modre	Belgian Blue	Mammalian				
	Brown Swiss	Brown Swiss	Mammalian				
	Ceska Cervinka	-	Mammalian				
	Cesky strakaty - o	-	Mammalian				
	Cesky strakaty sk		Mammalian				
	Charolais	Charolais	Mammalian				
	Galloway	Galloway	Mammalian				
	Gasconne	Gascon	Mammalian				
	Hereford	Hereford	Mammalian				
	Holstynsky	Holstein (black	Mammalian				Pig
	Jersey	Jersey	Mammalian				
	Limousin	Limousin	Mammalian				
	Masny Simental	Simmental	Mammalian				
	Montbeliardsky	Montbéliarde	Mammalian				
	Normandský	Normande	Mammalian				Rabi
	Piemontese	Piedmont	Mammalian				
	Plave akvitanske	Blonde D'aquita	Mammalian				
	RED holštýnské	Holstein (red an	Mammalian				
	Salers	Salers	Mammalian				
	Skotsky nahorni	Highland	Mammalian				
Goat	Anglonubijska	Anglo,Nubian	Mammalian				
	Bila kratkosrsta	White Shorthair	Mammalian				
	Burska	Boer	Mammalian				
	Hneda kratkosrsta	Brown Shorthai	Mammalian				
	Holandská zakrslá	West African D	Mammalian				
	Kasmirova	Cashmere	Mammalian				
	Moherova	Angora	Mammalian				
	Sanska	Saanen	Mammalian				
	Waliserská	Valais Blackneck	Mammalian				

Achal-Teke	Akhal,Teke	Mammalian		Sheep
Anglicky plnokrev	British Warmbl	Mammalian		
Arabsky kun	Arab	Mammalian		
Ceskomoravsky b	-	Mammalian		
Cesky sportovni p	-	Mammalian		
Cesky teplokrevnik	Czech Warmblo	Mammalian		
Hafling	Haflinger	Mammalian		
Huculsky kun	Hutsul	Mammalian		
Irský cob	Irish Cobb	Mammalian		
Klusak	-	Mammalian		
Kun Kinsky	-	Mammalian		
Moravsky teplokr	-	Mammalian		
Norik	Noric	Mammalian		
Shagya Arab	Shagya Arab	Mammalian		
Shetland Pony	Shetland Pony	Mammalian		
Slezsky norik	Silesian Norik	Mammalian		
Slovensky teplokr	-	Mammalian		
Starokladrubsky k.	-	Mammalian		
Traken	Trakehner	Mammalian		
Velsska plemena	Welsh Pony	Mammalian		
Bile otcovske	Large White	Mammalian		
Ceska landrase	Landrace	Mammalian		
Ceske bile uslecht	-	Mammalian		
Duroc	Duroc	Mammalian		
Pietrain	Pietrain	Mammalian		
Presticke cernostr.		Mammalian		
Cesky albin		Mammalian		
Cesky cernopesik	-	Mammalian		
Cesky cerveny	-	Mammalian		
Cesky lustic	-	Mammalian		
Cesky strakac	-	Mammalian		
Moravsky bily hne	-	Mammalian		
Moravsky modry	-	Mammalian		

Bergschaf	German Mounta	Mammalian		
Berrichone du Cher	Berrichon Du Ch	Mammalian		
Bila alpska		Mammalian		
Charollais	Charollais	Mammalian		
Cigaja	Tsigai	Mammalian		
Clun Forest	Clun Forest	Mammalian		
Dorper	Dorper	Mammalian		
Hampshire	Hampshire Down	Mammalian		
Jacob	Jacob	Mammalian		
Jurska	Jura	Mammalian		
Kamerunska	West African D	Mammalian		
Kerry Hill	Kerry Hill	Mammalian		
Kesantská ovce	Ouessant	Mammalian		
Lacaune	Lacaune	Mammalian		
Leicester	Leicester Longw	Mammalian		
Lein	Leine	Mammalian		
Merino	Merino	Mammalian		
Merinolandschaf	Merinolandschaf	Mammalian		
Nemecka cernohla	German Blackhe	Mammalian		
Olkuska	Olkusz	Mammalian		
Oxford Down	Oxford Down	Mammalian		
Romanovska	Romanov	Mammalian		
Romney	Romney	Mammalian		
Setlandská ovce	Shetland	Mammalian		
Shropshire	Shropshire	Mammalian		
Skude	Skudde	Mammalian		
Suffolk	Suffolk	Mammalian		
Sumavka	-	Mammalian		
Texel	Texel	Mammalian		
Valaska	Valachian	Mammalian		
Vresova		Mammalian		
Vychodofriska	East Friesian	Mammalian		
Zirne Merino	-	Mammalian		
Zuslechtena Valas		Mammalian		
Zwartbles	Zwartbles	Mammalian		



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Figure source: DAD-IS. 2023. https://www.fao.org/dad-is/en/

Mammals

State of AnGR in Czech republic

aviar ansboundary a breeds Avian Local avian breeds Ę Regional t Transboundary Country Name Species Breed Name Animal class Czechia Chicken Ceska slepice zlat.. -Avian Category Local avian breeds Dominant Barred .. -Avian Regional transboundary avian breeds Dominant Blue Ply.. -Avian Dominant Brown .. -Avian Dominant Columb., -Avian Dominant New Ha., -Avian Dominant Rhode I.. -Avian Dominant Rhode I.. -Avian Dominant Sussex .. -Avian Horal Rhode Islan.. -Avian Horal Rhode Islan.. -Avian Moravia Barred Pl.. -Avian Moravia Barred Pl.. -Avian Moravia Barred Pl.. -Avian Moravia Rhode Isl.. -Avian Moravia Rhode Isl.. -Avian Moravia Sussex (S.. -Avian Duck (domestic) rito Avian -Strkov TTH Avian Goose (domestic) Ceska husa Czech White Avian Ceska husa choch.. Czech White Avian Novohradská husa -Avian



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Figure source: DAD-IS. 2023. https://www.fao.org/dad-is/en/

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State of AnGR in Poland

an breeds

isboundary n breeds

Insbounde breeds Rabbit

Mammals

Country Name

Poland

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				Local mammal	Regional tran: mammaliar	International tra mammaliar	
Species	Breed	Transboundary Name	Animal class	P	Re	Inte	
Cattle	Angus czarny	Aberdeen, Angus	Mammalian				
	Angus czerwony	Aberdeen, Angus	Mammalian				
	Białogrzbieta	-	Mammalian				
	Blond d'Aquitaine	Blonde D'aquita	Mammalian				
	Brown swiss	Brown Swiss	Mammalian				
	Charolais	Charolais	Mammalian				Sheep
	Galloway	Galloway	Mammalian				
	Hereford	Hereford	Mammalian				
	Highland	Highland	Mammalian				
	Jersey	Jersey	Mammalian				
	Limousine	Limousin	Mammalian				
	Marchigiana	Marchigiana	Mammalian				
	Montbeliarde	Montbéliarde	Mammalian				
	Piemontese	Piedmont	Mammalian				
	Polska czarno-biał	-	Mammalian				
	Polska czerwona (Polish Red	Mammalian				
	Polska czerwono	-	Mammalian				
	Polska holsztyńsk	Holstein (black	Mammalian				
	Polska holsztyńsk	Holstein (red an	Mammalian				
	Salers	Salers	Mammalian				
	Simental mleczny	Simmental	Mammalian				
	Simentaler mięsny	Simmental	Mammalian				
	Wagyu	Wagyu	Mammalian				
	Welsh Black	Welsh Black	Mammalian				
Goat	Alpine	Alpine	Mammalian				
	Bur	Boer	Mammalian				
	Karpacka	-	Mammalian				
	Kazimierzowska	-	Mammalian				
	Nubian	Anglo,Nubian	Mammalian				
	Saanen	Saanen	Mammalian				
	Sandomierska	-	Mammalian				
	Uszlachetniona ba	-	Mammalian				
	Uszlachetniona Bi	-	Mammalian				

Alaska	Alaska	Mammalian			Horse
Belgijski olbrzym	Belgian Giant	Mammalian			
Belgijski olbrzym	Belgian Giant Al				
Biały popielniański	-	Mammalian			
Burgundzki	Burgundy	Mammalian			
Castorex	-	Mammalian	•		
Francuski baran	-	Mammalian			
Francuski srebrzy	French Silver	Mammalian			
Hawana	-	Mammalian			
Hermelin	Hermelin	Mammalian			
Kalifornijski	California	Mammalian			
Morawski olbrzym	-	Mammalian	•		
Nowozelandzki bi	New Zealand W	Mammalian			
Nowozelandzki cz	New Zealand Red	Mammalian			
Olbrzym srokacz		Mammalian			
Podpalany czarny		Mammalian			
Szynszyl wielki	Chinchilla giant	Mammalian			
Termondzki biały	-	Mammalian			
Wiedeński czarny	Schwarze Wiener	Mammalian			
Wiedeński niebies	Blauer Wiener	Mammalian			
Wiedeński szary	Graue Wiener	Mammalian			
Wielki jasnosrebr		Mammalian			Pig
Berrichon Du Cher	Berrichon Du Ch	Mammalian			
Biała Masywu Cen	Blanc Du Massif	Mammalian			
Bialoglowa Owca	-	Mammalian			
Cakiel podhalański	-	Mammalian			
Czarnoglówka		Mammalian			
Fryzyjska	Friesian Milk	Mammalian			
Ile-de-France		Mammalian			
Kamieniecka	-	Mammalian			
Kołudzka		Mammalian			
Koridel	-	Mammalian			
Leine	Leine	Mammalian			
Linia BCP	-	Mammalian			
Linia SCP	-	Mammalian			
Merynos barwny	-	Mammalian			
Merynos polski	-	Mammalian			
Merynos polski w	-	Mammalian			
Olkuska	-	Mammalian			
Owca plenna 09	-	Mammalian			
Polska owca górska	-	Mammalian			
Polska owca górs	-	Mammalian			
Polska owca nizin	-	Mammalian			
Polska owca pogó	-	Mammalian			
Pomorska	-	Mammalian			
Romanowska	Romanov	Mammalian			
Suffolk	Suffolk	Mammalian			
Świniarka	-	Mammalian			
Uhruska	Uhruska	Mammalian			
Wielkopolska	-	Mammalian			
Wrzosówka	-	Mammalian			
Żelaźnieńska	-	Mammalian			

	Arden	Ardennes	Mammalian		
	Czysta Krew Arab	Arab	Mammalian		
	Hucuł	Hutsul	Mammalian		
	Kłusak	-	Mammalian		
	Konik polski	Polish Konik	Mammalian		
	Kuc szetlandzki	Shetland Pony	Mammalian		
	Małopolski	-	Mammalian		
	Małopolski w star	-	Mammalian		
	Pelna krew angiel	Thoroughbred	Mammalian		
	Polski koń sporto		Mammalian		
	Polski koń szlache	-	Mammalian		
	Polski koń zimnok	-	Mammalian		
	Śląski	-	Mammalian		
	Śląski w starym ty	-	Mammalian		
	Sokólski	-	Mammalian		
	Sztumski	-	Mammalian		
	Traken	-	Mammalian		
	Wielkopolski	-	Mammalian		
	Wilekopolski w st	-	Mammalian		
_	Duroc	Duroc	Mammalian		
	Hampshire	Hampshire	Mammalian		
	Linia 990	-	Mammalian		
	Pietrain	Pietrain	Mammalian		
	Polska Biała Zwisł	Landrace	Mammalian		
	Puławska	-	Mammalian		
	Wielka Biała Pols	Large White	Mammalian		
	Złotnicka Biała	-	Mammalian		
	Złotnicka Pstra	-	Mammalian		



Category Local mammalian breeds

Regional transboundary mammalian breeds

International transboundary mammalian breeds





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State of AnGR in Poland

•	Avian
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Country Name Poland	Species	Breed		
Poland			Name	Animal clas
	Chicken	Barred Plymouth		Avian
		Barred Plymouth	-	Avian
		Barred Rock G77	-	Avian
		Barred Rock L11	-	Avian
		Barred Rock P11	-	Avian
		Barred Rock P55	-	Avian
		Barred Rock WJ44	-	Avian
		Czubatka polska C	-	Avian
		Czubatka polska C	-	Avian
		Leghorn G99	-	Avian
		Leghorn H22	-	Avian
		Leghorn H33	-	Avian
		New Hampshire N	-	Avian
		New Hampshire N	-	Avian
		New Hampshire N	-	Avian
		Polbar	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Red	-	Avian
		Rhode Island Whit.		Avian
		Rhode Island Whit.		Avian
		Rhode Island Whit.		Avian
		Rhode Island Whit.		Avian
		Sussex S11	-	Avian
		Sussex S55	-	Avian
		Sussex S-66	-	Avian
		Zielononóżka Kur	-	Avian
		Zielononóżka Kur	-	Avian

Zielononóżka Kur..

Żółtonóżka Kurop..

Duck (domestic)	Dworka	-	Avian	
	Kaczka pomniejsz	-	Avian	
	Mieszance KhO1	-	Avian	
	Pekin A55	-	Avian	
	Pekin angielski LsA	-	Avian	
	Pekin dunski P-8	-	Avian	
	Pekin F11	-	Avian	
	Pekin francuski P-9	-	Avian	
	Pekin Krajowy P-11	-	Avian	
	Pekin Krajowy P-22	-	Avian	
	Pekin Krajowy P-33	-	Avian	
	Pekin Krajowy P-44	-	Avian	
	Pekin Krajowy P-55	-	Avian	
Goose (domestic)	Biala Koludzka	-	Avian	
	Biala Koludzka W	-	Avian	
	Biłgorajska	-	Avian	
	Garbonosa	-	Avian	
	Kartuska	-	Avian	
	Kielecka	-	Avian	
	Kubańska	-	Avian	
	Landes	-	Avian	
	Lubelska	-	Avian	
	Podkarpacka	-	Avian	
	Pomorska	-	Avian	
	Romańska	-	Avian	
	Rypińska	-	Avian	
	Słowacka	-	Avian	
	Suwalska	-	Avian	
	Zatorska ZD-1	-	Avian	
Quail	F-11	-	Avian	
	F-22	-	Avian	
	F-33	-	Avian	
	J-33	-	Avian	
	S-22	-	Avian	
	S-33	-	Avian	



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Figure source: DAD-IS. 2023. https://www.fao.org/dad-is/en/

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