

# Frederiksborg Dynasties

Some breeds exert more focus on their female lines than others. Within the thoroughbred industry as well as the warmblood sector the value of possessing mares of specific families is widely recognized. The thoroughbreds, the Holsteiners and the Swedish Warmblood have long time back created a numbering system for the female dynasties, whereas Lippizans, Oldenburgers and Trakehners dedicate the name to the founder mare.

Only recently have the Hannoverian and Westphalian families been systematized through the huge work by Dr. Claus Schridde.

For the Frederiksborgers the systemizing of the families is relatively straight forward, since the studbooks very well document the pedigree of most mares at least to the beginning of the 20th century. All it takes is a bit of hard work and skills in creating a database.

## Genetics

For starters one can wonder why it is so interesting to devote time to analyse mare families.

Common Mendelian genetics dictates that an offspring inherits equal portions of genes from the mother and from the father; this holds for all DNA curled up into chromosomes inside the cell nucleus. Quite some time ago it was discovered that outside the cell nucleus, in the so-called mitochondria, DNA could also be found. Mitochondria is the power plant of the cell, where all metabolism of oxygen takes place, actually they may be said to function as a cell inside the cell.

At conception the mixing of chromosomes happens only inside the cell nucleus. The DNA that makes the mitochondria work (mt-DNA) already exists in the mitochondria of the egg and is a true copy of the rest of the mitochondria of the mare. Thus there is DNA which is passed on only from mare to foal, and it has been proven that

there is a very high specificity within the single mare line. Researchers have investigated mt-DNA from horses, whose only kinship was a mare 9 generations back, and they found identical mt-DNA<sup>[1]</sup>.

It has also been researched how high the diversity in mt-DNA<sup>[2]</sup>, ie. if the mitochondria origins from many or few maternal progenitors to the modern horses, and it was found that the diversity is very high, ie. nothing indicates the modern riding horses origin from at little pool of original mare, as is the case for the stallions.

On mt-DNA 13 genes have been identified who all codes for enzymes involved in the metabolism of oxygen.

Thus there is good reason to take a closer look at our Frederiksborg maternal dynasties.

## Stud names

Only few people will be able to make a direct link between the family names and the horses of today. Table 1 gives a short "dictionary".

"Surname"	Family
Skivholme	Norma
Langløkkegård/Toftegård	Hertha Skævinge
Næsdal	Ulla Billerup
Fyrkilde	Lise Snesev
Torp	Freja Hagelse
Bregnebjerg	Lise Løve
Bettysminde	Fylla Vejleby

Table 1: Family names



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## Data set

As basis for the analysis all mares elected in the Frederiksborg Horse Breeding Association from 1986 to 2005 have been included, i.e. the last 20 years of election.

To get an overview of the data, the families have been divided into 5 categories:

- Families of warmblood origin
- Families without a defined origin
- Younger families, where first known mare is born after 1950
- Older families, where first known mare is born before 1950 (in practise mainly between 1900 and 1950)
- Oldest families, which can be traced to the first issues of the studbook (in practise mainly traces to before 1900).

All mares must by definition have an origin that goes long way back, but not every mare can document her ancestry. For the time being there is no documentation available that lead a mare family back to the Royal Frederiksborg Stud. Sorry, there goes the magic down the drain.

The families are as basis named of the first mare of the line registered in the Register Studbook, which was issued from 1920 and forward (numbered by S) or in the Studbook (which later was called the Elite Studbook, numbered by H). In a few cases the founder mare was not registered, but 2 or more of her offspring has passed her line on. The line is in such case named after the first mare with 2 offspring (numbered by F).

In the following tables with specifications of the individual lines a year is printed in relation to the mare's name. This year refer to the mare in the line with the earliest known year of birth, ie. not necessarily the naming mare and further it does not rule out that further generations are known by name or paternal ancestry.

## Statistics of elected mares

The period from 1986 to 2005 is divided into 4 blocks (see table 2). The number of elected mares has been almost stable just below 200 mares pr. 5 years, although with a slightly declining tendency. Altogether 743 mares have been elected over 20 years.

Years of election	No of mares	No of families
1986-1990	185	74
1991-1995	192	66
1996-2000	188	65
2001-2005	178	60

Table 2: Number of mares and number of families represented, distributed on blocks of 5 years of election.

The number of mare lines represented pr. block is somewhat declining, beginning with 74 falling to 60. It is not the same lines that are represented in each block; the total number of lines over 20 years is 105, of which 19 are of warmblood origin or they cannot be traced more than 2 generations back.

Figure 1 shows, that only 1.6 % (cut to 2 %) of the total 743 mares is of lines of unknown origin and only 1.2 % is of warmblood origin. 6.7 % comes from lines where first known mare is born after 1950.

90% of the mares can in the mare lines be traced minimum 60 years back and many of them to the 19th century.

### No. of elected mares distributed on families 1986-2005

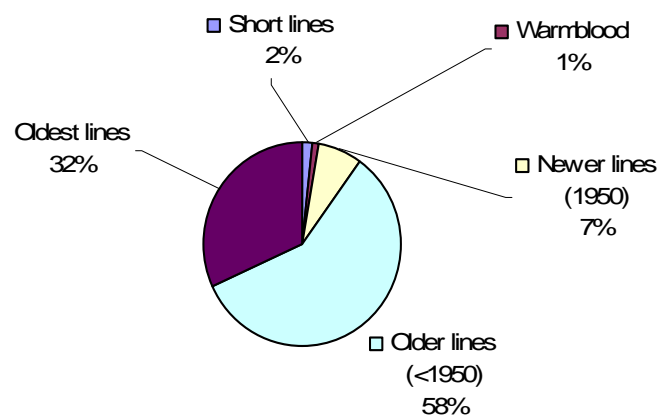


Figure 1: Percentage distribution of elected mares on line categories



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## Linie of warmblood origin and short lines

Only very few individuals origins from a warmblood mare, counting Hannoverian, Trakehnian, Thoroughbred and even a Connemara pony (table 3). The second category, Short lines, represents overall mares whose mothers or grandmothers lack documented pedigree (table 4). 20 of the 743 mare belong to these categories.

Founder mare	1986-1990	1991-1995	1996-2000	2001-2005	Total 1986-1995	Total 1996-2005
Kalenka DS 1155	0	1	0	1	1	1
Øxenholm Baby Jane C 311	0	0	1	0	0	1
Gabrielle DH 0825	0	0	0	1	0	1
Werona NLD 5018	0	0	0	1	0	1
Nausika HT 7421	0	0	0	1	0	1
Schulraetin HA H34249	0	0	0	1	0	1
Gwendilis XX DH 970	0	0	0	1	0	1
Chrimhilda HO H32907	1	0	0	0	1	0

Table 3: Index of elected mares from 1986-2005 distributed on families of warmblood origin.

Only 1 of the families has delivered more than 1 female off-spring, namely the family of Kalenka, whose mother Tøsen is of unknown pedigree. From this line come e.g. the beautiful Haute Ecole stallion Tyson (v. Milton Torp – Prins Østervang – Kassander/T – Abzug/Hann) and several top sports dressage horses, although bred without Frederiksborg blood. This is one of the few lines which still pass on the black colour in the Frederiksborg breed.

Founde mare	1986-1990	1991-1995	1996-2000	2001-2005	Total 1986-1995	Total 1996-2005
Blodmosens Madi S 8152	0	0	1	0	0	1
Flicka S 8142	0	0	1	0	0	1
Stella IV Skibstrup S 8292	0	0	1	0	0	1
Arizona Queen S 8165	0	0	1	0	0	1
Mercurii S 8380	0	0	0	1	0	1
Gipsy Vibeholm S 8391	0	0	0	1	0	1
Pernille S 8157	0	0	1	0	0	1
Resine Aunsbjerg S 8162	0	0	1	0	0	1
Regina S 8431	0	0	0	1	0	1
Stella Kærgård S 8058	0	1	0	0	1	0
Beloni Bøgeskov S 8065	0	1	0	0	1	0

Table 4: Index of elected mares 1986-2005 distributed on short lines.

## Younger lines (after 1950)

The category of newer lines counts 14 families (table 5)

The families of Bitten Vejleby, Hvidsok, Nikitta Tornhøj og Puk have been relatively stable, even though it is only the Bitten Vejleby family, that seems consolidated with 8 elected mares over 10 years. For the other families the future looks difficult. 5 lines have not set mares forward to election in the Frederiksborg Breeding Association (FHF) the past 10 years.

Bitten Vejleby is the ancestor of the stallion Jeopardy Fjord. Bitten Vejleby, born 1961 was not registered herself, but she achieved 3 rated fillies, Mona Kjærsgård, Sussi Kjærsgård and Lise Kjærsgård. The pedigree is blind ended at the mother of Bitten, Bella Gislinge. She was by National Kromose FRH 378 out of a chestnut mare. From this line comes also the Haute Ecole stallion Zarif Lykkesager (Zarif Langløkkegård – Kalle Kastaniely – Tito).

The Hvidsok family begins with her mother Nollie, born 1969 (by Hamlet 629). It is recorded that both Nollis mother (by Rubin Hamlet 525) and grandmother were Frederiksborg mares, but without further details.

## Older lines (before 1950)

58% of the 743 mare are out of a family whose founder mare was born before 1950, but cannot be traced back to the first issues of the Studbook. The category counts 435 individuals of 53 different families. 9 of these origins from the 1940'ies, 12 in the 1930'ies, 12 in the 1920'ies, 7 in the period between 1910 and 1920 and 7 in the period between 1900 and 1910. 6 of the lines traces to the 19th century (table 6).



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Founder mare	År	1986-1990	1991-1995	1996-2000	2001-2005	Total 1986-1995	Total 1996-2005	Trend	Diff
Bitten Vejleby F	1961	3	4	3	5	7	8	↑	1
Hvidsok S 7614	1969	1	0	2	1	1	3	↑	2
Nikitta Tornehøj S 7495	1959	0	0	1	1	0	2	↑	2
Puk F	1969	2	1	1	1	3	2	↓	-1
Tulle S 7435	1957	2	2	0	2	4	2	↓	-2
Angie S 7475	1966	1	1	1	0	2	1	↓	-1
Freja S 8126	1965	0	1	0	1	1	1	-	0
Sabina S 7152	1951	0	1	1	0	1	1	-	0
Silke S 7630	1970	2	3	0	0	5	0	↓	-5
Lotte S 7571	1955	2	1	0	0	3	0	↓	-3
Musse Aggersborg S 6670	1952	1	1	0	0	2	0	↓	-2
Arrogante F	1963	1	0	0	0	1	0	↓	-1
Danella S 7723	1951	1	0	0	0	1	0	↓	-1

Table 5: Index of families with origin documented to be after 1950. Order of succession determined by number of elected female offspring during the latest 10 years. "Diff" is the difference in number of elected mares between the two 10-year periods.

The horses of this category are spread over many different families, but many of them are weak with only 1 or few elected individuals and a declining tendency. 8 lines are represented with 8-10 off individuals and an inclining tendency; these are in a relatively strong position.

The family of Stella Strandagergård has produced 18 elected mares over the past 10 years. Compared to the period 1986-1995 it has gone up with 10 individuals and it seems that the family is more active now than previously. The family of Norma has in both periods forwarded approximately the same number of individuals, and is thus the family with most individuals over 20 years.

The families of Lise Snesev, Ulla Billerup, Lise Forlev and Rita Brændekær has also experienced progress over the past 10 years, whereas particularly the family of Fylla Vejleby has declined significantly; the horses of Bettysminde descends from this family.

15 of the families have not forwarded mares for election over the past 10 years and 7 of the families has only forwarded 1 individual in this period, however for 2 of these families it represents an increase (Monde Danstrup and Lise Egholm).

Stella Strandagergård was born in 1922 at Strandagergård in Melby, chestnut with blaze and stocking on the left hind, elected into II<sup>nd</sup> Class A in 1928 and sired by Sigurd Brederød. The dam, Hertha was born in 1915, elected into Class B and sired by a non-elected Pommery-son, dam was Stella, Elected Class A. Today the dynasty is not associated with a specific "surname", but horses from eg. Albæk and Ravnsgård is out of this line, as is the stallion Kejser af Iglso.

The mare Norma origins from Gørløse, a Skjold daughter elected into Class B in 1923. It is primarily through the daughter Inga II that the line is continuing, through her 4 elected female offspring and 1 elected stallion as well as 1 non-elected, but very breeding active stallion. Later the dynasty is recognised by the "surnames" Skivholme and Hegnsbo, who comprise a large part of the 31 mares in the table.

In this category is also found the very popular palomino dynasty Nette who origins from the mare Guldborg born 1946, who today are represented by stallions like Nigeria and Salisbury Vejleby.



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Founder mare	År	1986-1990	1991-1995	1996-2000	2001-2005	Total 1986-1995	Total 1996-2005	Trend	Diff
Stella Strandagergård S 0809	1915	4	4	10	8	8	18	↑	10
Norma S 0727	1907	9	5	9	8	14	17	↑	3
Lise Sneslev S 2539	1921	2	6	8	6	8	14	↑	6
Ulla Billerup S 1087	1921	5	2	3	11	7	14	↑	7
Lise Forlev S 2922	1932	2	6	8	5	8	13	↑	5
Molly Søgård S 4148	1935	3	8	6	7	11	13	↑	2
Rita Brændekær S 1547	1925	0	4	6	6	4	12	↑	8
Gulla Bjergsted S 4153	1909	5	4	6	4	9	10	↑	1
Thyra Holmegård S 2869	1934	6	3	3	5	9	8	↓	-1
Lotte Langemark S 5017	1931	3	4	5	3	7	8	↑	1
Freja Hagelse S 0009	1892	3	3	5	2	6	7	↑	1
Nette S 6845	1946	0	3	1	6	3	7	↑	4
Lise Tjæreby S 1611	1914	4	3	3	4	7	7	-	0
Dina Sigersted S 2087	1928	1	2	2	4	3	6	↑	3
Lise Løve S 3038	1926	3	2	3	2	5	5	-	0
Bruna Lyngå S 3066	1928	3	2	3	1	5	4	↓	-1
Fylla Vejleby S 5251	1919	4	7	2	2	11	4	↓	-7
Grethe Annisse S 1317	1926	5	3	2	2	8	4	↓	-4
Ilse S 6903	1948	6	3	3	1	9	4	↓	-5
Maja S 0171	1901	1	2	1	3	3	4	↑	1
Randi S 0876	1914	2	0	2	2	2	4	↑	2
Stella Egholm S 1805	1933	2	3	3	1	5	4	↓	-1
Tulle Engvang S 2123	1929	2	1	2	1	3	3	-	0
Flicka S 6889	1948	5	4	2	1	9	3	↓	-6
Lotte Bangholm S 6723	1949	0	0	1	1	0	2	↑	2
Stjerna Engegård S 3519	1931	2	4	1	1	6	2	↓	-4
Musse Grenå S 3106	1937	1	2	1	1	3	2	↓	-1
Musse Ny Gyregård S 5407	1942	2	2	1	1	4	2	↓	-2
Stella Laugø S 1208	1917	1	0	1	1	1	2	↑	1
Stjerne S 6927	1944	3	2	2	2	5	2	↓	-3
Thyra F 2334	1901	2	2	1	1	4	2	↓	-2
Musse Vejrmøllegård S 1500	1889	1	2	1		3	1	↓	-2
Monde Danstrup F 1216	1898			1		0	1	↑	1
Lusse Himmelev S 2169	1907	1	2	1		3	1	↓	-2
Lise Egholm S 3878	1939				1	0	1	↑	1
Gunny Koed S 4344	1930	1		1		1	1	-	0
Fylla Søvang S 4938	1926	2	1		1	3	1	↓	-2
Anne-Lise Langskiftegård S 2093	1933	1		1		1	1	-	0
Olga Silkemose S 0109	1887	1	2			3	0	↓	-3
Musse Korshøj S 4672	1943	1	2			3	0	↓	-3
Brunette Østerlund S 0502	1901	2	1			3	0	↓	-3
Rita Stiesholm F 2164	1892		2			2	0	↓	-2
Hertha Græsegård S 4067	1877	1	1			2	0	↓	-2
Ditte S 7340	1947	1				1	0	↓	-1
Herta Frostegård S 0597	1912		1			1	0	↓	-1
Jytte Charlottenlund S 5103	1936	1				1	0	↓	-1
Lis Tøstrup S 6622	1938	1				1	0	↓	-1
Rikke F 0589	1920	1				1	0	↓	-1
Sara Næsby S 0126	1910		1			1	0	↓	-1
Stjerna S 7048	1940	1				1	0	↓	-1
Thekla Hedegård S 7860	1921	1				1	0	↓	-1
Ville S 0287	1908		1			1	0	↓	-1
Flora Danstrup S 1569	1926	1				1	0	↓	-1

Table6: Index of families with origin documented to be before 1950. Order of succession determined by number of elected female offspring during the latest 10 years. "Diff" is the difference in number of elected mares between the two 10-year periods.



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The dynasty of Stella Laugø was once very frequently seen, among others through the stallions Frode Halsnæs, Rex Tranegård, Aladdin Tranegård, Kvik Tranegård and last but not least the mare Stella Bregnerød, who gave the stallions Magyar and Prins Bregnerød; The dynasty has only given 2 elected mares over the past 10 years, which is of course 1 more than the previous 10 years. The line was born on Tranegård in Laugø, Helsing, where the first documented mare is Emmy II.

A last note is that the elected Pinto stallion, Marott's Gay Pamus, who carries 37.5% Frederiksborg blood is out of the Ville family.

## Oldest Families

The oldest families are distributed on 19 different founder mares. Table 7 shows the distribution of elected mares pr. family.

The 2 absolutely strongest mare lines are found in this category; Hertha Skævinge, who through the last 20 years has delivered 74 elected mares (10%)

and shows an increase of 12 mares over the latest 10 years. The Hertha Damsmosegård line is the other strong family, who has given totally 43 mares on 20 years (6%) and shows an increase of 5 the latest 10 years. The family of Thyra Værfeldtsgård has declined rapidly and has the latest 10 years only got 10 elected mares compared to 16 the former 10 years.

It has previously been attempted to make an index of the Frederiksborg maternal lines. In the Elite Studbook from 1928 the first 3 families are designated. No. 1 was the Dobra line, No. 2 the Damsmosegård line, No. 3 the Brederød line. After a few years break it was followed up in 1935 with no. 4 the Kromose line and no. 5 the Engelsborggård line.

These families were selected because they, since the beginning of studbook record keeping in 1894 had been very significantly families with respect to production of both broad mares and breeding stallions. The numbering of the families were not further continued due to lack of finance. What the families have in common is that they origin

Stambog	År	1986-1990	1991-1995	1996-2000	2001-2005	Total 1986-1995	Total 1996-2005	Trend	Diff
Hertha Skævinge H 0775	1897	17	14	22	21	31	43	↑	12
Hertha Damsmosegård H 0312	1878	6	13	12	12	19	24	↑	5
Thyra Værfeldtsgård H 0646	1878	10	6	3	4	16	7	↓	-9
Dyveke H 1203	1893	5	4	3	3	9	6	↓	-3
Jenny Rugård H 1010	1872	2	2	3	3	4	6	↑	2
Frejda H 0351	1876	4	5	4	1	9	5	↓	-4
Robine Naby H 0715	1901	0	1	2	2	1	4	↑	3
Tulle Brokbjerg H 0809	1903	1	4	3	1	5	4	↓	-1
Brunette Galøgård H 0421	1894	1	1	1	2	2	3	↑	1
Ophelia Fodby H 0617	1893	2	1	1	2	3	3	-	0
Tulle Bognæsgård H 0968	1901	1	2	1	2	3	3	-	0
Rosa Søgård H 0544	1902	3	3	2	0	6	2	↓	-4
Zampa BO 016	1849	1	4	1	1	5	2	↓	-3
Jutta Risbygård H 0727	1877	1	0	1	0	1	1	-	0
Thyra Timannegård H 0878	1900	1	1	1	0	2	1	↓	-1
Thyra Ågård H 0871	1898	1	0	1	0	1	1	-	0
Molly H 0500	1887	1	1	0	0	2	0	↓	-2
Stella Hald H 0600	1901	1	0	0	0	1	0	↓	-1
Vesta II H 0489	1899	1	0	0	0	1	0	↓	-1

Table 7: Index of families with origin documented to be before 1900. Order of succession determined by number of elected female offspring during the latest 10 years. "Diff" is the difference in number of elected mares between the two 10-year periods.



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from Sealand, primarily from Frederiksborg County, in spite of the fact that some of the families from Bornholm at this time were actually equally strong.

From table 7 it is clear that of these 5 mentioned, strong families only the Damsmose family has survived, but fortunately this holds a very strong position. It is one of those lines that are not associated directly with one stud, in that it is rather branched already by the 2 daughters of Hertha Damsmose Gyriha and Gunda. The Damsmose family has had a sort of special impact on the breed, in that for a short period of time a Russian trotter stallion was used to service the mares. It gave 2 documented offspring, Nanno and Nepedulle of which the latter later got the son Saladdin Damsmosegård, who was used in the breeding quite a lot. Thereby "A touch of an especially pure and fast trotting gait was introduced to the breed" [3]. The pedigree of Hertha Damsmosegård was by Admiral (2<sup>nd</sup> son of Hamlet) out of Gerda born 1883 by Cirkas out of Lussa born 1878 by Regnar from the Royal Stud out of a daughter by Sigurd.

Hertha Skævinges family is to a large extent spread via Frederikke Toftegård (born 1942) who is progenitor of the Langløkkegård horses (although not to the stallion Zarif Langløkkegård, who is of the Norma family). Hertha Skævinge was sired by Hejmdal out of cavalry mare, which most probably carried Frederiksborg blood. She was born 1897 in Skævinge, but was conceived near Ringsted. By the admission into the studbook in 1916 she had had 12 foals; it was through the mare Thala born 1915, 2<sup>nd</sup> dam of Frederikke Toftegård, that the line was carried on.

Several of the farms on Bornholm were in the beginning of the 20<sup>th</sup> century true breeding centres of the Frederiksborg breed, including Vejrmøllegård, Timannegård, Risbygård, Tvillinggård etc., but it is the family of Værfældtsgård that lives today, even though it is

not nearly as strong as the two above mentioned families of Sealand.

Thyra Værfældtsgård was born in 1897 on Runegård, she was bay or brown and her pedigree was by Stanley out of Boldine born 1878 by Bourlington II out of a grey mare on Runegård by Gl. Frode (read: Old Frode). She produced more filly foals that ended up as broadmares on Bornholms Avlscenter (Breeding Centre of Bornholm), but it is though the daughter Lotte Værfældtsgård that the family is carried up to today. The stallions Arkebal and Marco Lyø are out of this family.

Jenny Rugård origins from Strø Rugård near Skævinge, a grey mare by Frode Borup out of a black mare born 1886 by Sort out of a black mare from Stenlille, born 1872 by Sigurd. Several daughters and daughter's daughters were praised at shows, but the line is not as widespread as eg. Hertha Skævinge and Hertha Damsmosegård. Today the family is often recognised with the studname Mosevang.

The mare Zampa was not entered into the 1894 studbook, but into the even older studbook of Bornholm (hence her special numbering in table 7), and she is the progenitor of the once ubiquitous family of Tvillinggård. Zampa was by Bourlington II, a half-blood stallion active on both Funen and Bornholm. Zampa's 2<sup>nd</sup> dam, a brown refined mare born 1849 by Young Pot-8-Os is the last known mare. The family is today represented by only very few mares.

The Molly line has its last elected mare in 1992, but this mare is still active in breeding, although she is old and until date has given only colt foals. Mollys 2<sup>nd</sup> dam, Thora was born in 1887.

The mare Vesta II is progenitor of the stallion Kazahr and has previously given many, many breeding stallions. Unfortunately there seems to be no female heirs to this line.



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## Closing remarks

To sum up the article, in the period from 1986 to 2005 there has been elected mares from 105 families in the regime of Frederiksborg Breeding Association, of which 8 are of warmblood origin and 11 are of families with no significant lineage. 14 families origin from after 1950, 53 families origin from 1900 to 1950 and 19 lines can be traced to the 19<sup>th</sup> century.

Of all the above mentioned families, it is 2 of the oldest families that hold the strongest positions at all, the Hertha Skævinge family, who over 20 years have produced 74 mares (10% to the breed, while number 2, Hertha Damsmosegård has produced 43 mares (6%).

26 of the altogether 82 families, excluding warmblood families and families without lineage, has produced 2 or less mares for the breeding the last 20 years, including some of the most important families from the past, e.g. the Risbygård family.

## References:

- 1 Bowling et al: Verification of horse maternal lineage based on derived mitochondrial DNA sequence
- 2 Sandberg et al: Widespread origin of domestic horse lineages
- 3 IC Christensen: "Heste i 100 år"
- 4 De Samvirkende Danske Landboforeningers stambog [...over frederiksborgheste]1894-1968
- 5 FHF Hoppestambog 1974-2001

*This is a revised edition of an article by the same author previously printed in the FHF member's brieflet.*

