

# THE MATERNAL FAMILY

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*What potential does a suitable breeding bitch offer if you want to build up a breed? Helmut Buß is working on an answer to this question.*



## HELMUT BUSS

**About the author** Helmut Buß was a teacher for 42 years. During this time, he was also the head of the work, economy and technology department, Chair of the personnel committee and lastly deputy head of Bohmte high school. He has been working with German Shepherds for almost 50 years, starting as a trainer (1969), then a breeder (1974 to 2015), a breed judge (1988) and breed inspector (1993). He has held many positions in office, including Society Breeding Director, Chair of his national committee, a member of the SV's Federal Court and a member of the constitution committee, and has been the delegate for the Waterkant national committee at the Federal Convention several times. Other positions in office: Chair of the Naturpark Dümmer local committee, breeding warden for LG Waterkant, member of the SV's Honorary Judging Council.

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### ***A breeding bitch:***

The author gave a presentation on “the significance of the breeding bitch” at a discussion evening in Viernheim in January 1991. The aim was to make breeders aware of the potential hidden within a suitable breeding bitch if you want to build up your own breed line. As an example of the bitch's ultimately greater breeding potential when compared with a dog, I said at the time that if you mate a donkey mare with a stud horse, a hinny will be born (similar to a donkey). If you mate a horse mare with a stud donkey, a mule will be born (similar to a horse). The greater similarity with the dam is based on hereditary influences, which happen outside the well-known hereditary processes (Mendelian inheritance). As breeders, we no longer need to concern ourselves with whether science, which is constantly evolving, now calls this phenomenon plasma inheritance rather than chromosomal inheritance, epigenetics or imprinting. In any case, at 99%, the plasma fraction in an egg cell is significantly greater than a sperm cell. The plasma contains cell components that have an influence over the inheritance impact of genes. These influences can also be passed on to future generations. Upon fertilization, the maternal egg cell provides the majority of cell organelles in the zygote. The zygote is the fertilized egg cell with a double set of chromosomes, from which a new life develops. This is why maternal influences can dominate among offspring. Mules and hinnies are prime examples of this. To be able to fully ascertain the importance of a bitch's hereditary qualities, you have to recognize the inheritance possibilities comparing a dog that is fully used for

breeding and a breeding bitch – around 250 puppies can be registered annually from one dog, whereas a bitch can only produce 5 to 10 puppies in one year.

Dogs' offspring groups have been presented and judged at the SV's Bundessiegerzuchtschau since 1957. Ultimately, there are only a few dogs left over that are of interest to breeders. Sometimes, even among champions with several offspring groups, there are no outstanding heirs. Breeders then no longer focus on the sire line and it is often no longer continued.

### ***The dam line:***

In comparison, if you look at the bottom row of the pedigree table, where in fields 2, 6, 14 and 30 – the bottom row, reading left to right – you will find the mother (2), grandmother (6), great grandmother (14) and great great grandmother (30), you often come across bitches who, due to their low numbers of offspring, have little chance of proving their astonishing hereditary performance – and this occurs down the generations. However, this makes good breeders stand out, since they not only use highly awarded breeding bitches to retain their dam line. They also use good, solid bitches to continue their proven dam line, and that is precisely what often makes a difference when compared with dogs used for breeding. Sire lines are often not continued with sons who did not make it to the top of the podium. Unfortunately, this results in a genetic bottleneck – a depletion of the bloodline variety in sire lines – which results in greater inbreeding. Paying closer





**FAMILY TIES** The maternal family of "Ibizi von Arlett" at the OG Naturpark Dümmer breed show.

### *The maternal family:*

With horse breeding, there is a presentation and evaluation of "mare families" at various events. As part of this evaluation, at least three animals from one dam line must be presented for evaluation. With a competition of this kind, a breeder who only breeds with one mare has the opportunity to show her daughter and granddaughter as a family group. If the group is of the appropriate quality, has made recognizable breeding progress, is highly uniform and shows a high level of fitness, the breeder will gain recognition among expert circles and will be suitably rewarded for their breeding work. SV President, Prof. Meßler, has put forward the idea of trialing a similar model at the next Bundessiegerzuchtschau as a pilot project. Three maternal families

**1ST OFFSPRING GENERATION**

**2ND OFFSPRING GENERATION**



were presented for the first time at the breed show organized by the Naturpark Dümmer local committee. The family of “Ibizi von Arlett” with five animals, the family of “Havanna vom Lärchenhain” with four animals and the family of “Wimpy vom Lärchenhain” with three animals.

**Offspring generation 1 (see figure below):**

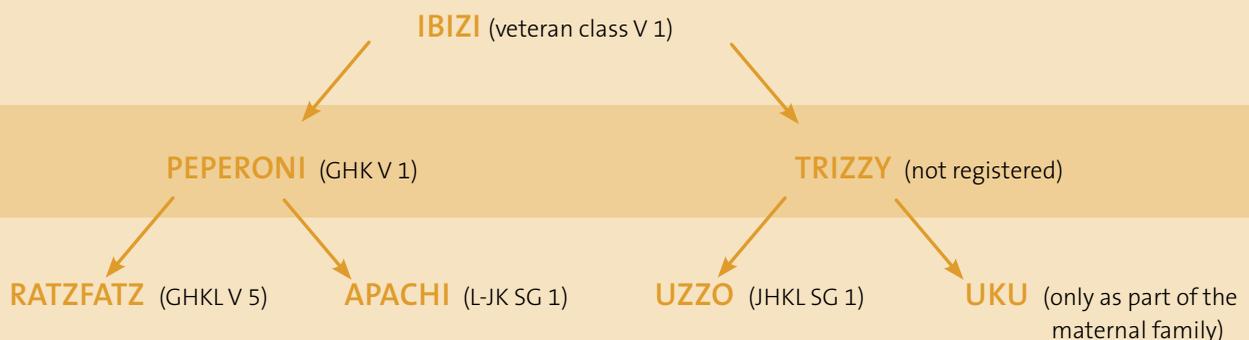
Peperoni was shown in the working class. Puzzy and Damien were also registered and could have been shown. Trizzy was not registered.

**Offspring generation 2 (see figure below):**

RatzFatz (Peperoni’s son) and Apachi (Peperoni’s daughter) were shown in the young dog class. Isetta was also registered and could have been shown as Peperoni’s daughter. Trizzy’s sons Uzzo (shown) and Uku (registered) were shown as part of the maternal family.

On the day of the breed show (02/24/2018), six animals aged nine months and above could be assigned to this maternal family.

*Schematic drawing of a maternal family: Founder bitch “Ibizi von Arlett”*



*Maternal family evaluation form*

<b>DOG'S NAME</b> including catalogue no.	<b>QUALITY</b> (including breeding progress from one generation to the next) 40% Points: max. 10 x 4	<b>UNIFORMITY</b> Type = Size and shape, color 20% Points: max. 10 x 2	<b>FITNESS</b> Health, vitality, performance, durability, fertility 40% Points: max. 10 x 4	<b>TOTAL: 10</b>	<b>RESULT</b>
<i>Dog 1</i>			ED HD Examinations Breeding survey Age Offspring		
<i>Dog ...</i>					
					<b>OVERALL RESULT:</b>

**SUGGESTIONS FOR IMPLEMENTING THIS IN BREED SHOW REGULATIONS****Maternal families:**

**a)** A maternal family at an OG or LG breed show consists of at least three animals (dogs and bitches) from one kennel, which can be attributed to the same direct dam line as this kennel, and must therefore bear the same kennel name.

**b)** A maternal family at the Bundessiegerzuchtschau consists of at least four animals (dogs and bitches) from one kennel, which can be attributed to the same direct dam line as this kennel, and must therefore bear the same kennel name.

**c)** Animals from a maternal family can be animals with either permitted coat variant.

**d)** All animals from a maternal family must be presented to the judge(s) as a closed group. The breeder is able to show several maternal families if appropriate.

**e)** The maternal family will be judged in accordance with

the following evaluation criteria: 40% based on the quality of the individual animals (including breeding progress), 20% based on the uniformity of the group and 40% based on the family's fitness (health, performance, durability, fertility, pronounced mother characteristics).

**f)** At the Bundessiegerzuchtschau, the individual maternal families will be presented to the assigned judge on Thursday or Friday, and judged based on this appearance. Should one of the dogs shown in the maternal family fall ill before the final evaluation on Sunday, the breeder is free to continue competing or to withdraw the maternal family. If the minimum number cannot be reached due to an animal falling ill, the maternal family cannot take any further part in the competition.

**g)** Participation in the maternal family competition must be recorded in the catalogue by completing an entry (registration form). All animals that are part of the presentation must be listed individually and in full under

## PILOT PROJECT AT THE 2018 SV BUNDESSIEGERZUCHTSCHAU

As part of the pilot project, it is only possible to register the maternal family using a separate registration form.

There will be no registration fees to pay. The maternal family registration form and all other important details will be available on the event website from June

[www.sv-bszs.de](http://www.sv-bszs.de).

the name of the maternal family. It is possible for a breeder to register several maternal families.

**h)** The presentation and evaluation of maternal families is a separate competition. Up to 50% of the participating animals do not have to be shown in their respective classes. However, registration fees must still be paid for these animals. Furthermore, they must have the appropriate qualifications for their age in terms of titles, breeding surveys and joint results.

**i)** For organizational reasons, an online entry must be made in the timetable at the same time as registration at

the BSZS. The presentation and evaluation of maternal families could be a particular incentive for breeders who breed on a smaller scale. It should be possible to show at least three animals at OG and LG breed shows and at least four animals at the Bundessiegerzuchtschau from your own breed line under your own kennel name. In cases where animals are brought together across several generations, a maternal family can provide excellent insight into a breeder's breeding activity and breeding aims.

A presentation and competition for maternal families at the SV's events would certainly bring the importance of breeding bitches to the fore in future.



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