

Special Study

Where do you go to my lovely?

When can kittens be separated from their mother?

*Here I am, I'm on my own
For the first time really on my own
So will I make it `will it work alright
Can I make it through the night
And I go
Uuuh, uuuh, uuuh I am flying
Uuuh, uuuh, uuuh in open space*



*Look at me, I'm riding high
I'm the airbornmaster of the sky
And everything beneath me seems to fade
Without a trade, without a shade
And I go
Uuuh, uuuh, uuuh I am flying
Uuuh, uuuh, uuuh in open space*

Introduction

In November 2009, the following announcement was given by the Danish Ministry of Justice:

He or she will be fined who sell or in other ways give away, or buy or in other ways acquire, kittens, if this transaction takes place before the kitten is 12 weeks old. The same punishment will be applied to persons who import kittens from abroad before they are 12 weeks old.

This rule does not apply if the queen follows the kitten to the new home, or when motherless kittens are given over to cat shelters or to a nursing cat.

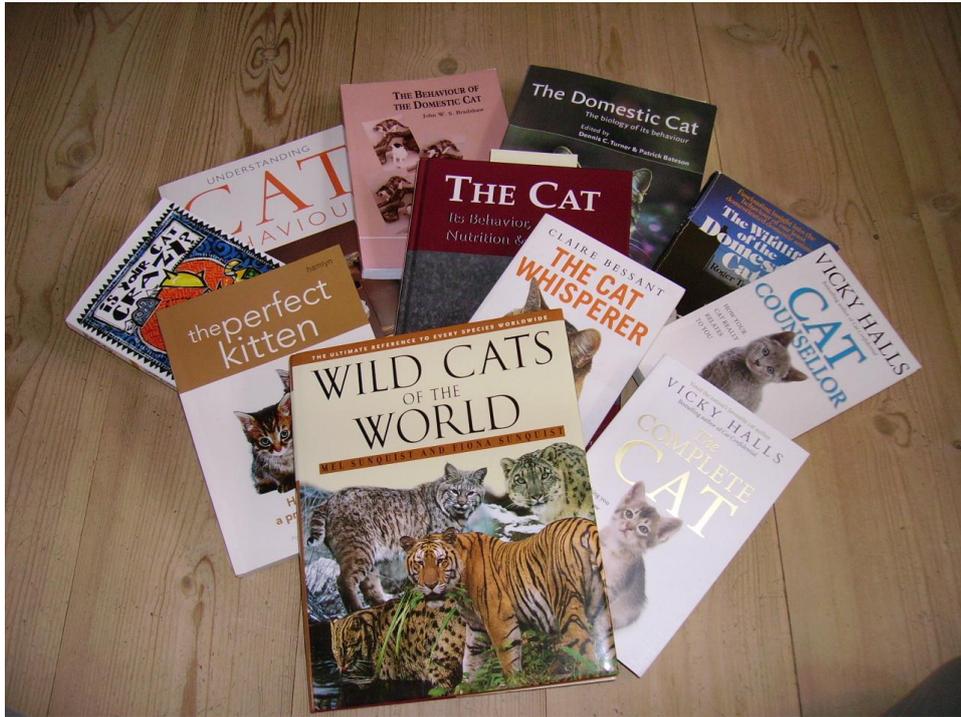
This law has been celebrated by Danish animal welfare organisations as a victory they have fought long and hard for. The Danish Cat Protection Society says “It is very important for kittens’ development that they are allowed to suckle their mother as long as needed, and that they learn all the things from the queen that only she can teach them. In this way one makes sure that the kittens grow up to be healthy and harmonious cats”. The Danish Society for the Protection of Animals likewise says “Kittens are first mentally ready to leave their mother at this age. If they are separated from their mother earlier there is the risk that they will develop behaviour problems like house soiling, excessive grooming or aggressiveness”.

In April 2010 I followed a course given by a leading Danish Cat Behaviour Councillor, and was surprised to hear her say that she does *not* think it is important to keep the kitten with its mother until its 12th week. *Unless* it is to become a hunting cat, as she claimed that the kittens’ mother teaches them to hunt after the 8th week. My first reaction was to say “No – it is very important for a kitten to stay with its mother until its 12th week”, but I realised that my arguments was only based on statements like the ones cited above. I.e. I had not really read anything in my many cat behaviour textbooks about kitten development after its 8th week.

This lack of scientific/empirical basis for arguing about the optimal age to rehome kittens can of course not do for an aspiring cat behaviour counsellor, and I thus set out on a quest to defend the new Danish law! My aim was to make the theme of this Special Study the kitten’s development between its 8th and 12th week, and why it is important for the kitten to stay with its mother during this period.

But immersing myself in the literature and asking experts from several countries I myself have become more and more confused about the subject! As outlined below, there are as many arguments *for* as *against* keeping the kitten with its mother until the 12th week. And very surprisingly the scientific literature presents very few empirical studies of the effect of the age of separation from the mother on the behavioural development of the kitten/cat later in life. So the final aim of this Special Study has turned out to be, not a *defence* of keeping the kitten with its mother until the kitten’s 12th week, but a *discussion* of the optimal age of separation, including a literature review, wise words from experts, and finally my own, today hopefully more nuanced, opinion.

Literature study



A broad sample of my cat behaviour textbooks yield the following guidelines for when a kitten could/should be rehomed:

- 'When raised in homes, kittens should remain with their littermates and the mother cat until they are at least 8 weeks old. The mother should be allowed to wean the kittens gradually' (Case, 2003, p 124).
- 'All the evidence suggests that kittens should not be taken away from their mother until they are naturally weaned, at about eight weeks. Separating a kitten from its mother earlier can cause stress and behaviour problems' (Sundquist and Sundquist, 2002, p 110).
- 'Kittens should not be separated from their mother before seven or eight weeks of age. ...Totally hand reared kittens...may exhibit other adjustment problems' (Wright, 1994, p 29).
- 'If kittens are pedigree strains, they are usually kept by the breeder until twelve weeks of age...However, if you have decided on a moggie you may well be able to take it home from the time it is six or seven weeks old' (Bessant, 2004, p 111).
- 'Pedigree cats tend to go to their new homes at thirteen weeks of age, after a complete initial vaccination course. Owners of non-pedigree litters won't be offering this...so eight weeks would be the ideal time for the kittens to leave their mother' (Halls, 2009, p 29).
- 'Eight weeks is the optimum age for the non-pedigree kitten to go to its new home. In the UK...pedigree kittens almost always remain with their breeders until they are at least 12 weeks old' (Neville and Bessant, 2005, p 16).

A few central books do not set direct recommendations for when kittens could/should be rehomed, including Bradshaw (1992), Turner & Bateson (2000) and Tabor (2003).

Many of the above authors agree that kitten can be rehomed at eight weeks of age, some mentioning 12-13 weeks for pedigrees. All authors, however, agree on a number of basic factors influencing the kitten's development: the weaning process, the bond to the mother, and socialisation to humans. Each of these factors is discussed in details below together with health and biological factors.

Time of weaning:



Most books I have investigated agree that weaning off the mother's milk starts at around 4 weeks of age and is more or less completed, with regards to nourishment value, at around 7-8 weeks (Turner & Bateson, 2000, p 11; Bradshaw, 1992, pp 71-72; Halls, 2005, p 33; Tabor, 2003, p 65; Case, 2003, p 122; Sundquist and Sundquist, 2002, p 109; Neville and Bessant, 2005, pp 44-45; Neville, 1996). However, kittens, especially from small litters, often continue suckling their mother for up to several months (Turner & Bateson, 2000, p 11; Bradshaw, 1992, p 71; Sundquist and Sundquist, 2002, p 109). Whether this contact has important social value is an open question; It has been discussed whether removing kittens from their mother before weaning is completed may increase the probability for the development of wool-sucking (Latham and Mason, 2008, p 90), but the only known investigation of this (Bradshaw and Neville, 1992; Neville, 1992, pp 201-202) indicates that other factors may also influence this.

Nevertheless, it seems that most authors in the list above set the time the (moggie) kitten can be rehomed equal to the time the kitten is physically (if not emotionally) independent of suckling.

Health:

During the first 1-2 days of the kitten's life it receives antibodies against infections from their mother's colostrum (Case, 2003, p 232). These antibodies block the effect of vaccinations in the early weeks of the kitten's life. During a critical period, lying somewhere between 6 and 16 weeks the antibodies will not be strong enough to prevent infections, but may still be strong enough to block the vaccinations. This is why kittens should receive a series of vaccinations during ~6-14 weeks. As such an 8-12 week old kitten may be vulnerable to diseases, even though it has been vaccinated which is one of the reasons stated for why pedigree kittens should not be rehomed until their 12th week (French, 2000; GCCF, 2010).

Learning from mother and siblings:

The kitten not only depends on its mother for providing milk and later solid food, but also for stimulating its learning of social and survival skills (Bradshaw, 1992, pp 78-79; Turner & Bateson, 2000, pp 14-15). The skill most often mentioned in the literature is hunting (Bradshaw, 1992, pp 79-81; Turner & Bateson, 2000, p 14; Tabor, 2003, p 70). This is facilitated by the mother first bringing home dead, and later live, prey to the nest, first showing the kittens the kill and later allowing themselves to try it out (Tabor, 2003, p 70). This process, especially bringing in live prey, continues after weaning (Tabor, 2003, p 70; Bradshaw, 1992, p 79).

There is further agreement in the literature that the kitten also learns several other things from the mother through interaction and observation (Bradshaw, 1992, p 78; Turner & Bateson, 2000, p 15; Case, 2003, pp122-123). I, however, feel that the specification of *what* exactly this teaching comprises is more vague; It is clear that the interaction *has* great significance, seeing that kittens removed *very* early from their mother (2 weeks old) later develop behavioural, physical and emotional problems (Turner & Bateson, 2000, p 14; Case, 2003, pp 122-123; Halls, 2005, p 30). But the question is then *what* it is in the bond with the mother that is important for the kitten? Neville (1996), Halls (2005, p 30), Neville and Bessant (2005, pp 128-129) and Frank and Deahasse (2003) all write that evidence suggests that the mother teaches the kitten self-control and acceptance of frustration during the weaning period. Neville (1996) discusses this process in depth, and underline that if accepting frustration is not learned, the kitten may later be more prone to develop behaviour problems alike ADHD (attention deficit hyperactive disorder) shown in children. Frank and Dehasse (2003), however, report 'There are currently no data on the regulatory influence of these corrections on subsequent kitten self-control'.

Another important question is at what age this bond to the mother is not important any more? Does it wear off at the end of the primary weaning period (8 weeks), or is rejection also part of 'comfort-suckling' observed later? Neville (1996) suggests that learning of frustration acceptance ends at the same time as weaning, while various breeders (see e.g. French, 2010) and some experts (see below) claim that important lessons regarding acceptable behaviour also occur after 8 weeks.

Likewise the interaction with siblings is said to be important for the kitten's social development (Turner & Bateson, 2000, p 15; Halls, 2005, pp 35-36; French, 2010). Turner & Bateson (2000, p 15) reports that kittens reared on an artificial brooder with no siblings are slower to learn social skills than normally-reared kittens. Here I, however, feel the need for a control group¹ where litter mates are raised on an artificial brooder, indicating whether these are better at learning social skills, or whether they still need the mother; For single kittens the mother often play the part of the missing siblings (Turner and Bateson, 2000, pp 15-16), which again brings the question back to the importance of the mother, and to when the bond to the mother ceases to be important?

Socialisation to humans:



For a kitten raised to become a family pet it is of utmost importance that it is socialised to humans. All literature agree that the central sensitive period of socialisation towards humans lies between 2 and 7 weeks, based on research performed by Eileen Karsh in the 1980'ies (Turner & Bateson, 2000, p 195; Bradshaw, 1992, p170; Halls, 2005, p 35; Case, 2003, p 121; Tabor, 2003, p 71). During this period it is very important that the kitten is handled daily for at least one hour, preferable by several different people. This will increase the probability for the kitten to become a friendly and contact-seeking cat.

That later experience with humans, nevertheless, also plays a role and may change a cat's attitude is discussed by both Bradshaw (1992, p 170) and Turner and Bateson (2000, p 197). Turner, however, theorises that a cat that has not been socialised in the sensitive period will "require a great deal of positive experience with a stranger to overcome its lack of experience during the sensitive phases".

¹ Although I do *not* like the nature of the experiment!

Biology:

An aspect that should be considered is the time of separation in the feral domestic cat (*Felis silvestris catus*) and its closest relative, the African wildcat (*Felis silvestris lybica*). Tabor (1983, pp 175-176) writes “The mother’s responsibility lasts at least the nine weeks or so until weaning, and in colonies of cats the close association usually lasts longer”, and further that feral kittens are first fully independent at 6 months. About the African wildcat Sundquist & Sundquist (2002, p 95) write “In the wild the young begin to accompany their mother on hunting trips when they are three months old....and are independent at six months”.

Thus kittens of the feral Domestic cat and the African wild cat are first fully independent at 6 months. Whether this independence mostly concern the young cats’ ability to acquire prey by themselves, or whether the bond to the mother also ensures other behavioural aspects is not discussed by the sources, but the general rule points to when the kitten would itself choose to leave its mother (or vice-versa).

Research:

All sources discussed above include facts going up to the kitten’s 8th weeks, but very little discussion of whether staying with the mother after this age is important. I myself have only been able to find two studies touching this subject. Ramos and Mills (2009) performed a study of risk-factors for the development of human directed aggression in domestic cats, and conclude that age when acquired does not appear to increase the risk of aggression. They, however, differentiate between acquired before and after the 6th month, which is the age the kitten would in any event be independent in nature. As such this does not tell us anything about the importance of staying with the mother after the 8th week. Amat et al. (2009) investigated risk factors associated with various behaviour problems. The paper does not report the influence of the age of separation, but asked directly the author replied “Although we analysed these data, in our study we didn't find any differences regarding the age of the kitten and the age of adoption”.

Thus the empirical research up to today generally seems sparse and it does, in my opinion, not really give any further information. An interesting study is currently being initiated at the University at Bristol, UK (Bristol, 2010), where cat owners are to answer various questions about their growing kittens/cats four times between the age of 8-16 weeks and 18-19 months.

When this study ends in 2-3 years time from now, more will be known about the importance of the mother-kitten bond.

Expert advice



After researching the literature, I still felt that more could be said about when a kitten could/should be separated from its mother, especially because none of the authors agree with the new Danish law². I thus contacted experts from several countries to ask their updated opinions. The majority of answers, shown in their full length in the appendix, are very thoughtful, expressing great concern for kitten/cat welfare. 7 of the 15 questioned experts express a direct limit to when the kittens could/should be rehomed:

- 1) I have no problem with kittens staying with their mother until they are twelve weeks old PROVIDING the quality of the socializing and habituation is good.
- 2) I advise to let kittens stay with their (healthy, behavioural not bothered, and learned to mother) mother for at least 16 weeks.
- 3) I've always argued, health permitting, that kittens of all but one or two later weaning pedigree strains, should be homed at 5-6 weeks on the behavioural side. That is as close to the onset of adult hazard avoidance capabilities... as possible.
- 4) I would say 7-8 weeks at the earliest. If the environment is good, slightly longer may be better, especially for Oriental breeds.
- 5) I have seen quite a few kittens taken too early, i.e. before the 12th week. A great part of these develop problem behaviour – but if too early weaning is the only reason is not certain.
- 6) Personally I am happy with the 12 weeks law; rather a week too much than a week too little.
- 7) I definitely recommend not separating from either the mother or litter mates until at least 10 weeks, even better 12 weeks to promote optimal socialization to both.

² Halls (2005, p 36) actually agrees with the new law, saying 'Kittens should ideally not be placed in their new homes until they are twelve weeks old', but later in Halls (2009, p 29) say that it might be better for non-pedigree kittens to be rehomed already at eight weeks.

Thus up-to-date opinions varying from 5-6 weeks until 16 weeks! To understand this large difference it is necessary to look closer at opinions the experts have about the factors influencing on when a kitten could/should be rehomed. Below is given a summary of their different opinions:

- a) The mother teaches the kitten disappointments in connection with weaning, and it is very important for the kittens to learn to handle disappointments without freaking out. Cats that have been weaned too early...have difficulties handling disappointments, and it is in this situation you can get cats that does not inhibit bites in a hand that is withdrawn, or that only are attached to one person and attack everybody else.
- b) The quality of the social referencing (habituation) may be poor at a breeder's and therefore owner has less chance to make a significant difference after 12 weeks. This could be more significant than the presence of the queen.
- c) Research... done on my cases shows that the sooner the kitten is separated from its mother, the more problems it will develop.
- d) Homing at 12 weeks makes fear associated problems more likely unless the breeder's home is very challenging and a 'mad house', which many pedigree breeder's home seem not to be, and thus almost predispose the kitten to 'can't cope' problems in its new home.
- e) My worry is not all kittens are fully weaned at this time³ and what effect does separation from mother (and if being homed as a sole kitten, from siblings) have on emotional development? Bite inhibition and frustration tolerance are greatly learned from siblings and mum.
- f) Sensitive period of cats is apparently quite short, and it seems practically difficult to home kittens before the end of this period without risking other problems. Later homing is less of an issue if the rearing environment is representative of the environment the adult animal will live in.
- g) Research shows that there may be problems if the kittens are taken from its mother before the 4th week, but there is no scientific evidence supporting the 12th week rule. And who is going to implement this law⁴? Can you with 100% certainty see if the kitten is 10 or 12 weeks old? If the kitten grows up in a 'bad' environment, can you then not rehome the kitten before its 12th week?
- h) I...think it is best for the animal and the owner that the animal's development is finished and that the cat mother has 'thrown the kitten out of the nest' (i.e. does not show any interest in the kitten anymore), because then the kitten is mature enough and have learned enough to be a healthy cat that can survive and is less perceptible to the owners influence.
- i) There is no doubt that the meanings and experiences in this area for a large part builds on what we know about dogs. Earlier cats were perceived in the same class as little dogs in all veterinary and biological connections...Thus our opinion today is based on a changed view on our animals and their welfare combined with our experiences through many years. Too early weaned kittens often display behaviour problems later in life...but this is not something we have proof for through systematic research.
- j) My worry is that kittens that is not properly socialised on people while with the mother in the place they are born (very many ordinary moggies are *not* properly socialised) will find it harder to learn to fit in as pets. This problem will increase the older these cats are before they are rehomed with their new human families.
- k) The kittens certainly learn more than just hunting from their mothers then⁵ (which they learned earlier up to 8 weeks), especially social behavior (socialization) toward conspecifics, which seems to go on longer than toward people.

³ "This time" refers to the 5-6 weeks recommended by expert no 3) in the list of age recommendations.

⁴ I.e. the Danish 12 week law.

⁵ I.e. later than the 8th week.

Here several, and contradicting, worries spring to mind. Some experts worry that the kittens may not learn to control *disappointment/frustration* or *bite inhibition* if they are separated from the mother before weaning is ended. Some use this to argue kittens should be kept with their mother to the 8th week at least (when physically important weaning is approximately completed) while others argue this means kittens should be kept to the 12th week (thus including weaning off comfort suckling as an important factor). On the other hand some experts emphasise the importance of *socialisation to humans*, taking place before the kittens 8th week. One expert uses this argument to claim the kitten should be taken from its mother around its 5th-6th week. Finally one expert emphasises that *socialisation to conspecifics* (litter mates) is equally important, which seems to take place later than socialisation to humans.

Discussion

From the above literature study and up-to-date expert advice it seems clear that there is still great insecurity and disagreement about when is the right age to rehome a kitten. However, several important factors emerge that influence the kitten/cat welfare, physically as well as psychologically, later in life:

- In nature the kitten would first leave its mother at 6 months.
- Kitten rehomed before ~14-16 weeks are vulnerable to disease.
- Kittens may learn important rejection from the mother also after its 8th week.
- Kittens should be socialised to people between 2 and 7 weeks.
- Kittens should be socialised to conspecifics, which occurs later than the 8th week.

Thus at least two contradicting facts based directly on evidence: human-socialisation and health. One more demonstrated fact is that the kitten would stay longer than 8 weeks with its mother in nature, indicating a bond that may include important learning from the mother, beyond her providing food. And finally the claim that kittens learn rejection/bite inhibition from its mother, also later than 8 weeks old.

So what is my conclusion? I can not ignore breeder's experience (e.g., French 2000), that kittens may need their mother after the 8th week. But I can neither ignore the need for proper socialisation to humans before the 8th week. I thus agree with the experts who will not set a direct age for rehoming but emphasise the need for a holistic view on how kittens should be raised to become well-functioning family pets. I agree with the experts who express concern about the quality of socialisation in the kitten's birth home; many pedigree breeders know this need and make sure the kittens are properly socialised, but what about the many many moggie kittens born each year in 'ordinary' families without very much knowledge about cats? Is the new Danish law beneficial for these kittens? Will they always get the proper socialisation in busy families that did not plan for their queen to suddenly have kittens? And, if not, would a large part of these kittens not be better off later in life by being rehomed, and thus socialised to, their new homes earlier than 12 weeks? I thus agree fully with the expert saying:

'I have no problem with kittens staying with their mother until they are twelve weeks old PROVIDING the quality of the socializing and habituation is good. That is something far more worthy of legislation!'

I end this assignment with emphasizing the great need for further empirical investigations into kitten development between 8 and 12 weeks: This will benefit all cats, but maybe especially Danish moggies that might actually be worse off because of the new law, an effect that was for sure not the aim! I feel sure the law was designed to *increase* the welfare of especially moggies, and as such I can only applaud the initiative! *But after performing this study I can not fully support the law.* What is really needed is, as said above, more knowledge, and finally, and

very importantly, more information to ordinary moggie owners about the fascinating and complicated biology and needs of the animal they share their life with.



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Appendix: Personal communication

During the course of this study I contacted experts on cat behaviour worldwide to enquire about their opinion on when it is optimal to separate a kitten from its mother, and why. In this appendix the different answers I got are reproduced (translated from Danish when appropriate).

Answer 1 (Danish Veterinarian specialised in cats):

The mother teaches the kitten disappointments in connection with weaning, and it is very important for the kittens to learn to handle disappointments without freaking out. Cats that have been weaned too early and become single cats later in life have difficulties handling disappointments, and it is in this situation you can get cats that does not inhibit bites in a hand that is withdrawn, or that only are attached to one person and attack everybody else.

Too young kittens that move in with a grown up cat can learn to handle disappointments, but not like as from the mother (behaviour is best learned from the mother – this you can find research about). Two kittens together will also learn this, but not as good as a kitten with a grown up. And finally for single cats the human will only teach them to handle disappointment partly, but we can not replace a conspecific. It is also very difficult for a new owner of a small kitten to push the kitten away and teach it disappointment – one would rather give it love and care.

It is far from all cases of early weaning that ends badly, most actually work well. But at the same time, if you look at statistics over aggressive cats, you will see that most of them are weaned too early.

The aggressive behaviour resulting from too early weaning can be so violent that the owner does not dare to be in the home together with the cat. I have had to put a cat like this to sleep at one time, so this is firsthand experience and not myth.

Answer 2 (English cat behaviour consultant):

Cat behaviour has only been studied closely for a comparatively short period of time and many of the original papers that shape our opinions are based on extremely small numbers. Many conflict with each other and you always have to look at the quality of the research and the validity of the methodology before deciding something is 'true'. The problem with making statements such as "cats taken from their mothers at 12 weeks + get more behaviour problems" is that it is a sweeping indictment of the practice and I would have to say "show me the evidence". I would make several points:

- 1) Kittens stay longer with their mothers traditionally if they are pedigree. They cannot therefore be compared with domestic cats leaving at the same age as most owners just want them out of the house as soon as they are weaned.
- 2) Pedigree cat owners are more likely to bring behaviour problems to the attention of a vet or behaviour counsellor; that doesn't necessarily mean that pedigrees are more likely to develop problems because they are pedigrees. It will undoubtedly be multi-factorial.
- 3) What was the sample size for this study? What was the methodology?

My experience is that pedigrees (and therefore cats that are removed from their mothers at twelve weeks) are disproportionately represented in my case load. However my opinion is that this is for a number of reasons:

- 1) Owners of pedigrees tend to have higher expectations of their pet's behaviour
- 2) Owners of pedigrees pay large amounts of money for their pets and therefore may have more disposable income or feel that the initial investment justifies the expense of behaviour therapy
- 3) Pedigree owners tend to keep their cats in or give them restricted access outdoors.

4) The quality of the social referencing (habituation) may be poor at a breeders and therefore owner has less chance to make a significant difference after 12 weeks. This could be more significant than the presence of the queen.

Bear in mind also that a large percentage of the cat owning population never take their cats to a vet (at least here in the UK) so never form part of the data base. Another large percentage (my opinion, not proven) of owners tolerate behaviour problems or are unaware of them and therefore do not seek help. Some cats are re-homed without the previous owner declaring the presence of a behaviour problem.

My opinion is that I have no problem with kittens staying with their mother until they are twelve weeks old PROVIDING the quality of the socializing and habituation is good. That is something far more worthy of legislation!

Answer 3 (Dutch cat behaviour consultant):

I advise to let kittens stay with their (healthy, behavioural not bothered, and learned to mother) mother for at least 16 weeks. That is the minimum. But why should we take away a sibling from its mother? Research done by the University of Antwerp on my cases shows that the sooner the kitten is separated from its mother, the more problems it will develop. Pedigree cats (because they stay at least 12 weeks with their mother) experience less behavior problems. So now the doctors I work with on the university advice also to leave kittens at least 16 weeks with their mother.

Answer 4 (English cat expert):

I've always argued, health permitting, that kittens of all but one or two later weaning pedigree strains, should be homed at 5-6 weeks on the behavioural side. That is as close to the onset of adult hazard avoidance capabilities (i.e. emergence of fear as an emotion and more independent coping strategies to deal with it) as possible...the actual age of onset is probably about 42 days in the average DSH. We have some data for puppies but not for kittens so this is a best guess. Homing at 12 weeks makes fear associated problems more likely unless the breeder's home is very challenging and a 'mad house', which many pedigree breeder's home seem not to be, and thus almost predispose the kitten to 'can't cope' problems in its new home.

Answer 5 (English cat expert):

Having hand reared many a kitten and now rearing kittens with mum, I am quite mixed about this. I completely see P's point in terms of emergence of fear and ensuring socialisation through early rehoming but my worry is not all kittens are fully weaned at this time and what effect does separation from mother (and if being homed as a sole kitten, from siblings) have on emotional development? Bite inhibition and frustration tolerance are greatly learned from siblings and mum. One of the problems is we are lacking data for evidence based decisions. I find this area really interesting and am just about to become involved research wise in this area, I'd really welcome hearing other people's views on this.

Answer 6 (English cat expert):

This is not a clear cut issue, and more evidence is needed in order to come up with good advice.

Sensitive period of cats is apparently quite short, and it seems practically difficult to home kittens before the end of this period without risking other problems.

Later homing is less of an issue if the rearing environment is representative of the environment the adult animal will live in.

To me the issues are:

- 1) Good rearing environment, etc.
- 2) Less age-specific advice, because there may be significant variation in developmental stage at a given age.
- 3) Identification of optimal developmental stage for homing.
- 3) Use of behavioural indicators of developmental stage, so that kitten is at the optimal developmental point for transfer to new home.

Answer 7 (American Cat behaviourist and Veterinarian):

I would say 7-8 weeks at the earliest. If the environment is good, slightly longer may be better, especially for Oriental breeds.

Answer 8 (American Cat behaviourist):

Ayoe, ...It sounds more like folklore to me, too (AH – i.e. that cats develop behaviour problems if they are rehomed before their 12th week).

Answer 9 (Danish Cat Behaviour Consultant student and Cat breeder):

I do not have knowledge about any direct surveys, but I am myself breeder and know breeders who in up to 40 years have participated in the birth of 2-3 litters a year. This is many many litters that they have seen grow up – and I see no reason to question the experience they have build up.

That this has not been investigated does not necessarily say that the 12 weeks law is wrong. It just shows how very little prestige there has been in performing research in cat behaviour for many years. There are many things about this animal that has not been investigated.

I have seen quite a few kittens taken too early, i.e. before the 12th week. A great part of these develop problem behaviour – but if too early weaning is the only reason is not certain. Part of the behaviour is often taught by the owner by ordinary learning principles, among others pica and 'home alone' problems (a problem more common than generally believed in cats, but also fairly often ignored). However, other parts of the behaviour can not be explained by learning, e.g. lacking social/language abilities towards conspecifics.

Within certain breeds the owners even prefer to keep the kittens until they are 16 weeks old; one reason is development of behaviour where some breeds are slower than others, but another reason is immunity-defence – a kitten is born strong and is it as long as it gets milk from its mother. But when the weaning starts the kitten's immunity defence starts decreasing fast, and this has to be strengthened again before the kitten moves to a new home with all the stress involved in this process. Therefore a great part of the breeders think that the kittens should not be rehomed before the 16th week.

Answer 10 (Danish Veterinary nurse specialised in cat behaviour):

I think it is good that we finally have a law regarding this subject, but I can not figure out what the background/basis is for this law. Research shows that there may be problems if the kittens are taken from its mother before the 4th week, but there is no scientific evidence supporting the 12th week rule. And who is going to implement this law? Can you with 100% certainty see if the kitten is 10 or 12 weeks old? If the kitten grows up in a 'bad' environment, can you then not rehome the kitten before its 12th week?

I think it is good to consider laws regarding this subject, but there are many grey zones, and questions that no one can answer.

Answer 11 (Danish Cat Behaviour Consultant student):

There are many aspects the 12 weeks law does not take into consideration. Have the cat mothers been considered in thinking about when the kittens are ready to 'move away from home'? And who is behind this law?

The question is not only about health, inheritance or environment, at least not when you consider the animal after it is rehomed or when you consider illness and behaviour. The question is also about the holistic relation between the animal and the specific new owner. It is often the case that the illnesses and 'behaviour problems' the animals develop or already have, often reflect 'imbalances' or 'problems' that the owner has or works with, and not the least the 'errors' the owner makes in relation to the animal. When you read case stories about behaviour, you soon realise that many 'basic' errors are behind, even though we talk about people who have had cats for many years....

I thus think it is best for the animal and the owner that the animal's development is finished and that the cat mother has 'thrown the kitten out of the nest' (i.e. does not show any interest in the kitten anymore), because then the kitten is mature enough and have learned enough to be a healthy cat that can survive and is less perceptible to the owners influence.

Answer 12 (Director of a Danish Animal Welfare Organisation):

I doubt whether you will ever get an even approximately unambiguous answer to the question about the kitten's bond with its mother between 8 and 12 weeks. Veterinarians, researches, behaviour psychologists, and many other know experts have each their opinion and unfortunately we can not ask the kittens. Personally I am happy with the 12 weeks law; rather a week to much than a week too little.

Answer 13 (Danish Veterinarian specialised in cats):

I unfortunately have no material that can shed light on this subject. I have myself, in connection with the proposal for the new law, tried to find something, but with no success. There is no doubt that the meanings and experiences in this area for a large part builds on what we know about dogs. Earlier cats were perceived in the same class as little dogs in all veterinary and biological connections. When I studied the cat's illnesses were mentioned as an appendix in the end of the books about dogs. Thus our opinion today is based on a changed view on our animals and their welfare combined with our experiences through many years. Too early weaned kittens often display behaviour problems later in life (e.g. house soiling, wrongly directed hunting instinct, and aggressive behaviour), but this is not something we have proof for through systematic research. It is therefore very needed with new investigations about the kittens development also after the 8th week, with special focus on which importance these last 4 weeks has for the 'finished' cat.

Answer 14 (Danish Animal Behaviour Consultant specialised in cats):

My worry is that kittens that is not properly socialised on people while with the mother in the place they are born (very many ordinary moggies are *not* properly socialised) will find it harder to learn to fit in as pets. This problem will increase the older these cats are before they are rehomed with their new human families. And this is for sure something that gives low animal welfare and behaviour problems. And it is well known that it is very difficult to do anything about behaviour problems caused by lack of socialisation.

Answer 15 (Swiss Animal Behaviour Consultant specialised in cats):

You are right in that there is no PUBLISHED evidence proving that and what kittens learn from their mothers and litter mates between 8 and 12 weeks. Closest to come to that would be Rosemarie Schaer's book on the Hauskatze (Ulmer Verlag). They certainly learn more than just hunting from their mothers then (which they learned earlier up to 8 weeks), especially social behavior (socialization) toward conspecifics, which seems to go on longer than toward people. I definitely recommend not separating from either the mother or litter mates until at least 10 weeks, even better 12 weeks to promote optimal socialization to both.