

## 2011 Edition: LGRS Sugar Glider Introductions Primer

***DISCLAIMER: Speak to your veterinarian about introductions and share this primer with him or her if your vet is not familiar with sugar glider introductions. Our experience at the rescue in doing introductions is based on trial and error and observations of behavior during many attempts to do introductions. That makes us expert, but we are still laypeople. So it is recommended that you speak to your vet about this paper. All questions and correspondence from your veterinarian will be answered by the directors of LGRS promptly.***

This is the fourth edition of the Lucky Glider Rescue & Sanctuary Sugar Glider Introduction Primer which got its start after we gained enough experience doing introductions at the rescue that it made sense to publish it for newcomers. There are numerous factors to take into consideration when contemplating the introduction and joining together of strange sugar gliders. Over the years, we have attempted over 100 separate introductions. Many have worked, and many have failed. This primer represents the body of work we have done in joining gliders and we recommend you read it and ask questions if you wish to introduce gliders yourself.

Lucky Glider Rescue & Sanctuary also offers assistance in doing introductions here at the rescue itself. This means you will have to travel to the rescue if you want assistance in doing introductions.

This Primer is arranged with the following topics:

- A. Correct Expectations**
- B. Your Safety**
- C. Suggie Safety & Welfare**
- D. Sugar Glider Behaviors and Territorial Dynamics**
- E. Introduction Methods**
- F. Top Twenty Introduction Tips**
- G. Motivation for Introductions and Warnings**

## **A. Correct Expectations**

Don't get your hopes up too far. Introductions between strange sugar gliders fail quite often and it can be dangerous for small gliders and especially joeys. We do introductions dozens and dozens of times each year to join rescues and to help local families (under our supervision). Introductions can end in heartbreak, so you have to take advantage of all the tips that are out there. Talk to people who do it all the time. Advice from someone who has done it once successfully unfortunately does not prepare you for the worst. As mentioned in the disclaimer, we recommend getting your vet involved.

## **B. Your Safety**

For the most part, sugar gliders look and act all cute and cuddly. But that single, innocent little sugar glider in your pocket can turn into a real terror if he or she feels compelled to fight or defend itself against another sugar glider.

For this reason, it is important that you arm yourself with gloves or wrap fleece around your hands so if you have to pull them apart, you will not be bitten really hard. A sugar glider bite that goes down to the tendon sheath level can cause a virulent infection that may put you in the hospital.

We are not talking about the tiny nips you get when you get bitten by mistake when you are feeding a treat. We are talking about them sinking their sharp lower teeth a good half inch into your finger all the way down to the bone.

They do not do this to you because they want to hurt you, but usually just because if they are in a fight with another glider, they bite wildly and blindly because they are fighting for their lives sometimes.

## **C. Suggie Safety & Welfare**

Sugar Gliders will fight to the death if they decide they don't like each other for whatever reason. Maybe a snit starts and one gets defensive and does a lunge and that is returned by a small bite. Then it may escalate into a flying fur ball of death.

When sugar gliders decide they do not like each other, or if one feels compelled to defend its territory, they will fight to the death and unfortunately, that takes only seconds. Some may emerge from a fight badly cut up or maimed but it can be ugly.

This means you must be very diligent and keep vigil when you introduce gliders to one another. Do it at night when you are in for the evening and with the idea that you will have to camp out next to their cage to make sure a tentative friendship lasts all night.

Based on our experience with dozens of both successful and failed introductions, the "first impression" is what counts. If two suggies sniff at each other and start kissing and grooming one another, there's a 90% chance they are going to make it as cage mates. But if two suggies sniff at each other and just start fighting, there's a 90% chance they will do that over and over each time you try.

If you "think" they are getting along and then you just leave them together for the night and walk away, you could be signing the death warrant for one or both of them. You **MUST** stay with them and stand vigil and be ready to take them apart if they decide to fight. If they end up in the same pouch or nesting box together, that is a good sign, but you should put the cage next to your bed that night and sleep with one eye open, with gloves at the ready in case you have to pull them apart if they start fighting.

Another aspect of the Suggies' safety and welfare deals with the general health of the gliders. Before you "introduce" a new glider or gliders to an existing colony, do a 30-day quarantine of the new ones in their own cage. It's a good idea to do this and get a wellness check two weeks into the quarantine period or at the end. Certain parasites may be in incubation when you get a glider so it's best to wait a full 30 days for that reason and then check them again.

Size and age also figure in to the Suggies' safety and welfare. If the existing glider or gliders are **BIG** compared to the new one - don't put them together yet because the big ones may easily kill the little one if they reject her. Wait till the new one(s) catch up size-wise.

***NOTE: This is ESPECIALLY important for joeys. Do NOT do introductions where there are young joeys at risk. It takes no time whatsoever for an adult glider to kill a teeny-weenie glider. The adult can easily pierce the skull of a joey if it is on a territorial rampage. Simply put... Put some FAT on those babies and wait until neuter age - 4.5 months, get them neutered, let them recover THEN attempt the intro. They will be sub-adult at that point, not all hopped-up on testosterone, and much more likely to survive an attack that you can break up.***

## **D. Sugar Glider Behaviors and Territorial Dynamics**

There are three important behaviors in sugar gliders that drive the dynamics of introductions:

### **1. Assertion of Dominance**

### **2. Colony Defense**

### **3. Scent**

**1. Assertion of Dominance.** When you are introducing two solo gliders one usually emerges as dominant, or they are both dominant and fight. Strange gliders, when introduced, almost immediately go about establishing dominance. This manifests itself in growling, defensive posturing and chasing. If they do this, it does not necessarily equate to a failed introduction. You should allow them to "posture" but separate them if they are landing bites or balling up and screaming.

Generally speaking, it is easier to introduce two lone gliders to one another because they are lonely and crave interaction with a member of their own species. That is no guarantee; however. It does not matter if you are pairing two females, two males or a male and a female. Neutering of the males ahead of time and waiting a few weeks for the testosterone levels to go down is a good idea.

The dynamic is greatly simplified if there are only two. This is because a lone glider is not an "alpha" of a colony and has no one else to defend but itself.

**2. Colony Defense.** It is not recommended to introduce a solo glider to more than one glider in an existing colony. It may work, but more often than not, that solo individual will be attacked. So the dynamics of an existing colony are MUCH different. Here, an existing alpha male or female, especially if sexually mature, will want to defend its turf and will have a tendency to attack any other sugar glider that is not already imprinted with the colony's native scent. Usually, the alpha male or alpha female emerges as the defender and will make a bee-line for the intruder and just start fighting. It is rare that a single glider being introduced to an existing colony is accepted. It is more common that the single "intruder" is attacked.

**3. Scent.** Sugar Gliders are big scent markers. They mark territory and belongings with scent glands, urine, and saliva. Strange gliders, upon introduction, are focused on the scent of the other glider and will immediately react either positively or negatively after getting a "whiff" of the other glider.

## **E. Introduction Methods**

There are five introduction methods you can try in the following suggested order:

- 1. Two-Handed Introduction**
- 2. Tent Introduction**
- 3. Supervised "Sleepy Pouch" Introduction**
- 4. Scent-Swapping**
- 5. Scent Masking**

**1. Two-Handed Introduction.** Try putting one glider in one hand and one glider in the other so you can hold on to them and comfort them. It is a good idea to wear gloves while doing this even if you know both gliders and they are both (separately) bonded to you. It is a good idea to have a neutral (non scented) fleece in each hand so they can snuggle into the fleece if they get frightened during the introduction. Slowly bring your hands closer together while keeping a gentle grip on each glider through the fleeces. Observe closely what the reaction is between the gliders. If they don't start fighting right away, you can slowly cup your hands together and allow them to interact while you are holding them. If that works with no fighting, you can put them down on a fleece and see if they get along. But be ready to pull them apart.

**2. Tent Introduction.** You may also introduce them in a tent and initially bring them together with the two-handed introduction. This is effective with two gliders. Any more and it might be too hard to handle them all if they start fighting. I say this assuming you will be in the tent with them. If you are in the tent with them you can easily separate them if there is a fight. If you don't use a tent, you can try a bathroom. Put fleece on the counters.

**3. Supervised "Sleepy Pouch" Introduction.** You can also try the "Sleepy Pouch" method. Here, you get a clean, large (Ventilated) pouch that has enough room in it to put your hand between the two gliders. It is recommended you do this in the morning when they are sleepy. Wrap a small (clean) fleece around each suggie. Put one in one corner of the pouch and then put your hand in. Then put the other one in on the other corner of the pouch. Here, their scents will slowly intermingle while they are sleeping so when they wake up, the scent of the other glider is not a shock. You may withdraw your hand from time to time, but keep yourself ready to put it in there if they stir and begin to awake. As they awake, you can spread your fingers apart and allow them to see each other and smell each other through your fingers. This takes a long time, so do it when you have time - not right before you have to go to work or run errands.

**4. Scent Swapping.** You can try a "slow introduction" method which involves the swapping of bedding, pouches and cages. This is towards the end of the list because we have found that if a glider does not like the scent of another glider that does not abate with constant introduction of the strange glider's smell. But it has been known to work on some gliders. The procedure is simple. First, you take a fleece square that has been well-scented by the other glider and put that fleece square in the nesting box or pouch of the other glider. Keep doing this for about a week.

Next, you can progress to swapping their pouch or nesting box. Do that back and forth for about a week.

Last, you can simply swap them back and forth between cages - pouches, fleeces, toys and all. For about a week.

The idea is to get their scents combined and get them used to each other's smell.

Once these steps have been done, you can introduce them in a neutral setting using one of the previous methods. If that is successful, outfit them in a newly cleaned, neutral cage and see if they get along.

**5. Scent Masking.** By attempting to neutralize their scent with masking agents such as (non-alcoholic) vanilla extract, or even tuna juice (as is done with rat introductions), their scent reaction is minimized. Using a scent masker puts them both on a level playing field so they smell like each other instead of something "not like." It is best to do this after the glider has peed and otherwise eliminated so there is no extra urine or fecal matter about to come out. Here, you can use a damp cloth to gently wipe their fur and nether regions to wipe away extra residual scent. Now, you can use the scent masking agent with a dab on their back, neck and cloaca area. Be careful not to use any cleaning agents, alcohol-based material or anything caustic that could possibly hurt the glider. A dab of canned tuna juice, which is food, is not going to hurt them. Ditto a natural vanilla extract that has no alcohol. You can get non-alcoholic vanilla extract at Trader Joes. It is called Trader Joe's Cookbook Vanilla.

We recommend the scent masking if the above methods fail. You can then use scent masking as a combination with one of the other methods.

## **F. Top Twenty Introduction Tips**

Here are 20 related tips dealing with introductions you should remember:

1. Quarantine first. It's also good idea to take all animals to the vet for a check-up (two weeks after you get them so the incubation period for certain parasites have passed). And be prepared to take them to a vet in a hurry if/when they start biting each other and they cause open wounds.

2. Make sure the females are NOT pregnant. Introductions, especially failed ones, may trigger enough stress for her to destroy her babies. Talk to your vet about the quarantine period.
3. "Pick on someone your own size." The new ones must be the same size as the existing alpha male. They have to be able to defend themselves long enough for you to separate them. If you throw someone else's babies in there, your established gliders could kill them in a snap.
4. Males should be neutered before introductions if they are old enough (4.5 months) and give them a few weeks to recover and normalize. It's easier to do "strange" introductions with neutered males. The less testosterone - the better.
5. When sugar gliders attack and fight, they do so blindly and fearlessly. They will roll up into a ball and bite anything they can get their teeth on. During introductions, wear gloves.
6. If you get bit deeply on the finger, an injection of bacteria into the tendon sheath can land you in the hospital. If you get bitten deeply, wash the area, use hydrogen peroxide to clean the wound and make an appointment with your doctor to see if you need a course of antibiotics.
7. The introduction "environment" must be an open, glider-safe neutral space OUTSIDE OF THE CAGE. Do NOT just plop gliders in the same cage to see what happens. You must be able to maneuver in and amongst them and you cannot have a tiny door as an obstacle. A bathroom is perfect for this purpose and inside the shower stall (door closed) or in the bathtub (drain closed) is a perfect space.
8. Give them something to snuggle in together but not a tight space like a pouch. Instead you can use handfuls of fleece because it is easier to pull them apart if they start to fight that way.
9. It only takes a few minutes to figure out if there is going to be aggression between gliders no matter what method you use. If they don't get along, you can REVERT to scent-swapping.
10. Have enough room in your heart to take them as pets separately if the union fails. This means if you only have one glider and you are about to go out and acquire another one, you should prepare yourself for the distinct possibility that the union will fail. Can you handle two cages? And two separate play times? If you cannot, we do not recommend running out and getting that second glider and then end up surrendering it to a rescue if the introduction fails. Think it all the way through.

11. Introducing females to an adult male is a lot easier than introducing another male, neutered or not. Even adult males and females will fight each other when introduced, but he is less likely to fight with a female than a male.

12. Males can get along, but you'd do very well to neuter them first. This is a warning. If the established male is neutered it is better. It takes only 4 to 5 months for established males to assert their sense of territory as they grow up. Neutered ones will also fight, but the less testosterone the better.

13. Sleepy Introduction Warning. It's easier to introduce someone new if they are sleeping or sleepy. You can put them in a pouch and have your hand at the ready. They will wake up smelling a combination of their own scent and the scent of the "other." However, you must now let them play out in the open and get a load of each other while they are wide awake. Do not assume they are OK with each other just because they slept in the same spot. This is a warning.

14. Keep food away at first. Some gliders are really territorial about their food - especially around strangers. Wait long enough for them to show you they are getting along before food is introduced. Food can be a lightning rod for aggressive behavior. It is ok to delay feeding them until after it looks like they are getting along. Anywhere between 6-8 hours of delay is not going to hurt your gliders. You can also feed them ahead of the introduction so they have some food in them before you try.

15. If a female is in estrous, it's better to delay introductions. You'll know if she is because the male(s) will be trying to mount her and bother her, neutered or not. And if she keeps chasing him or them away in the standard ritual, that's not a time when introducing strange gliders is a good idea.

16. You should have a spare, neutral cage ready. This means if you have one glider in one cage and another in a second cage, you must neutralize the scent in one of the cages so when you are ready to join them, the dominant scent of one glider is not pervasive. Use a steam cleaner, scrub brush, vinegar and soap mixture, etc. and scrub that cage down! Double-wash all of the toys, fleeces, pouches, nesting boxes, etc. throughout the cage.

17. It is OK if hissing and crabbing and a little lunging goes on, just listen for "screaming" which is like a high-pitched sound on top of frantic crabbing. That's real fighting. If they break each others' skin you must watch them closely because if it gets infected, that may trigger self mutilation.

18. If your gliders wound each other and leave open, bleeding punctures, get them to your vet. If you are diligent you can pull them away from each other hopefully before any real damage is done.

19. Scrapes and cuts have a tendency to be over-groomed which can lead to self-mutilation, so you should have an e-collar on hand in case it is needed before you go to the vet.

20. It is important to understand that you must prepare for separating two (or more) fighting sugar gliders and that the separation must happen immediately, and without hesitation. That's why you need to have gloves on. If you are the type of person that upsets easily and will faint or go weak-kneed at the sight of fighting, you better get someone in the room who can deal with breaking up a fight. If you cannot handle this or cannot get someone to help you who can handle it, your lack of preparation could spell death for one or more animals.

## **G. Motivation for Introductions and Warnings**

If you are motivated to join cages of gliders together because it is more convenient for you to have one cage, we would argue that is not a sufficiently strong reason to do introductions. In fact, it could be dangerous for your sugar gliders. Introductions are especially risky if you are joining two groups of gliders. Larger colonies in general are not a good idea. It is not often that a colony over six in size ends up very happy. One glider will usually be ejected, chased to the bottom of the cage, picked on, or killed. Large colonies do not exist in the wild. Matriarchs of colonies usually chase away the smaller females when they become adult. In our experience, large colonies are the result of inbreeding and there are often casualties, maiming and death associated with those. For this reason, it is not recommended that you join groups of gliders for a resulting large colony.

Our motivation at Lucky Glider Rescue & Sanctuary in introducing gliders is to improve the quality of their collective lives. This especially makes sense if you have lone gliders that are over-grooming from the stress of being alone or even biting themselves because of stress.

Gliders are colony animals and generally have a better quality of life if they are with another glider. We regard these circumstances of lone gliders who are displaying stress-related behaviors as "at-risk" gliders.

Over-grooming can escalate easily into self-mutilation (SM) where a glider will bite at its tail or cloaca and sometimes even bite off its tail or a digit or even disembowel itself. Although some of these SM behaviors can be triggered by malnourishment, urinary tract infection, or a digit being stuck on an object -- in many cases it comes down to the stress of being alone. We have seen over-grooming and full-on SM behaviors completely abate after joining lone gliders.

Some gliders can lead healthy lives as loners, but many cannot. It is for these at-risk gliders that we recommend the introduction methods listed here. There are more extreme methods such as wetting we have tried twice, but these have not been fully proven and will require more input from veterinarians and other experts before being fully condoned. At this time, the methods listed here are the ones we fully endorse, without reservation. Again, we recommend showing this paper to your vet and getting advice on which method may be right for you.

If you want to talk about this in more detail before attempting to try an introduction, please contact Lucky Glider Rescue & Sanctuary on 877-504-5145 or [donations@luckyglider.org](mailto:donations@luckyglider.org)