

# PREDATOR IMPRINTING ON LIVESTOCK HERD DYNAMICS

Mark L Coats

This study began a few years back as discussion between a Ranching neighbor and myself. The question is how can a predator move through livestock and the livestock remain undisturbed, yet a domestic dog will have the same set of cows quite unsettled. I have witnessed this livestock predator relationship through the years with every predator except a



mountain lion.

So in asking many professionals about this, there was no specific name to this interaction. With that said, for this discussion in this article I am going to refer to this behavior as *predator imprinting*. The goal of this interaction is not a thought process but an instinctual behavior. But if we understand the mechanics of this behavior we can apply such techniques to our advantage in handling of our livestock and preventing this interaction.

The reason to avoid this interaction is that *predators* are opportunistic. They use this interaction to gain acceptance into the herd group and close presence to the livestock, creating a window of opportunity. If such an opportunity would arise they would be in a position to capitalize on it. An opportunity that comes to mind is the cow being comfortable with such presence, leaves her young calf unattended to graze. In which case the predator has established its accepted presence, and is then given the opportunity to capitalize on the opportunity presented to it. The effort doesn't require stealth in stalking the calf, but simply the absence of the mother's defense. The predator, by establishing itself with *predator imprinting*, has convinced the livestock that there is no reason for alarm or concern with its presence, removing the defensive posture of the herd.

There is a mechanical process that the predator applies to achieve this skill of *predator imprinting*. With time and *indirect pressure*, the predators show a perception of non-aggressive and even an uncaring attitude towards the livestock. Although the livestock may make an initial move towards the predators, creating a retreat in the predator's position. That retreat is stopped as soon as the cow's aggressive intentions stop. And a slow methodical approach or encroachment is begun again. The predator often stands or moves in a slow parallel movement recreating the *illusion* of uninterested presence. Thus establishing a firmer position of *predator imprinting*.

Establishing such a presence benefits the predator's objective. And be assured that the predator's objective is not peaceful coexistence, but the opportunity to do what predators do. The livestock are only of prey interest to a predator, or the possibly of a future prey opportunity. Granted, a coyote is not interested in a mature cow, but it is interested in her calf or the aftermath of birth. The coyote helps establish a *predator imprinting* for larger and more capable predators. It is not a coordinated effort of the predators, but it creates a developed response in the livestock's interaction, the acceptance that helps the larger more threatening predators establish *predator imprinting*. This interaction of predator and livestock only creates opportunity, which favors the predators position.

This interaction of *predator imprinting* has an effect upon the herd dynamics. It could be suggested that this behavioral skill is actually a loosening agent for the defensive posture of the herd group. Initiating the first steps to predation. Observations of cattle that are in highly coyote populated areas show a very spread out grazing pattern. The defensive posture of the herd group without intervention is lost until the Apex predator reinstates fear and the chase sequence, rekindling the fear reaction among the livestock, creating the response of a predator trained *standing solution*. This posture of predator awareness (when applied by the predators) is not a desirable event.

By understanding that *predator imprinting* is not an innocent or an indifferent action we can start to address the action for what it is, the primary introduction to the predators that our livestock will receive. Without our interaction and training the predators presence will be accepted and established.

By interrupting the *predator imprinting* we can help block the predator livestock interaction. And by understanding that slow and indirect parallel pressure and occasional retreat will help us as Stockmen achieve a trusted position, where we introduce the training and the opportunity to instill a behavioral response to a predator or any other perceived pressure. Then the predators themselves have shown us this key interaction and how to apply it to interrupt their interaction.

As a Stockmanship skill we can learn several things by observing this predatory behavior. It is how the predator introduces themselves to the livestock that establishes the predator's presence. It is an indirect introduction with slow parallel movements and small retreats from a safe distance, slowly encroaching into the livestock's flight zone, with the perceived lack of interest for the objective. It is in fact the opposite pressure of a *chase sequence*. This action if applied by the Stockman helps settle and promote a calm excepting herd group where training of *predator awareness* may begin.

Through the years, the main solution to the problem of livestock predator interaction has always been directed at the predator. The predator now being protected by law only leaves the option of resolving the conflict from the livestock's side. Years of predator control have created these regulations that now protect these predators. Our Stockmanship may be the last chance, but it may well be the best also.

If you think of this *imprinting* action as a conversation without words but rather with movement, you realize that with any conversation there is an introduction. That introduction is the precursor for how the flow of the conversation will follow. If it begins aggressively, then the response will be fight or flight from our livestock, just as it would be for yourself if someone approached you in a threatening manner. But if it begins cordially, then the response can be the beginning of new conversation or, on the Stockmen side, where training may begin.

I have talked about this introduction before in *developing the herd* as an action or introduction to the livestock, such as settling cattle prior to a NCHA event. The aggressive move would be the direct line of approaching the cattle. The *imprinting action* would be an indirect line of approach, *indirect pressure*. This approach may take some initial following or stopping (getting ahead of the cattle) if the cattle are sensitive. Sensitive or flighty cattle would be cattle who have movement upon the first sight of your presence. These cattle will need extra *imprinting* effort to except your presence. But the same indirect movement outside their flight zone is how you establish *imprinting*. This effort of *imprinting* is it's own effort. If *imprinting* is the goal, and the cattle are sensitive, make it the only effort that day. Don't think that while your processing these cattle we will imprint them too. Remind yourself about a conversation and the introduction. You would not expect to meet someone at the grocery store and drag them to your corrals to start processing cattle. Remember we are opening a dialog of *imprinting* and preventing future depredations. This method needs to have the same priority as any other management event, don't schedule other things in the same time frame.

Once you have completed several sessions of imprinting with your sensitive cattle you can begin the introduction of your *Predator Awareness training assistant*. Calmer and more gentle cattle will be ready for the introduction much quicker. The next step will be *Establishing the Herd*.

It is my thought that predators instill fear and fears reaction of fight or flight. The predators require our livestock to respond in an instinctual way. The predator requires an individual to prey upon. By training our livestock with a reaction of seeking the herd group when they receive a predator's presence or pressure, the livestock themselves avert a confrontation.

Much is said about *stress* in the livestock industry and it's inherent losses to the predators. By training and instilling a response and a reaction of grouping into a defensive posture upon such pressure and stress, we interrupt the reaction of individual flight that the predator requires. The defensive posture of the herd then becomes an asylum of calmness and security, averting the stressful attempt of predation.



By training our livestock with the *standing solution* and *herd awareness* and the defensive posture of *predator awareness* we train our cattle to defend themselves against predatory pressures.

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