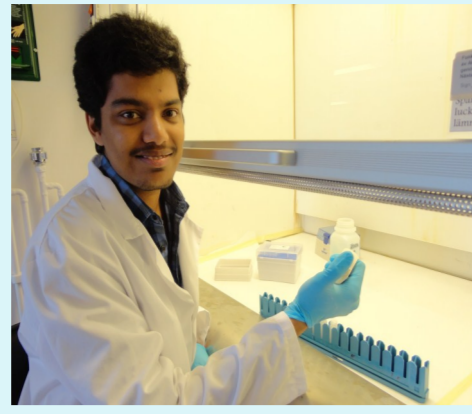


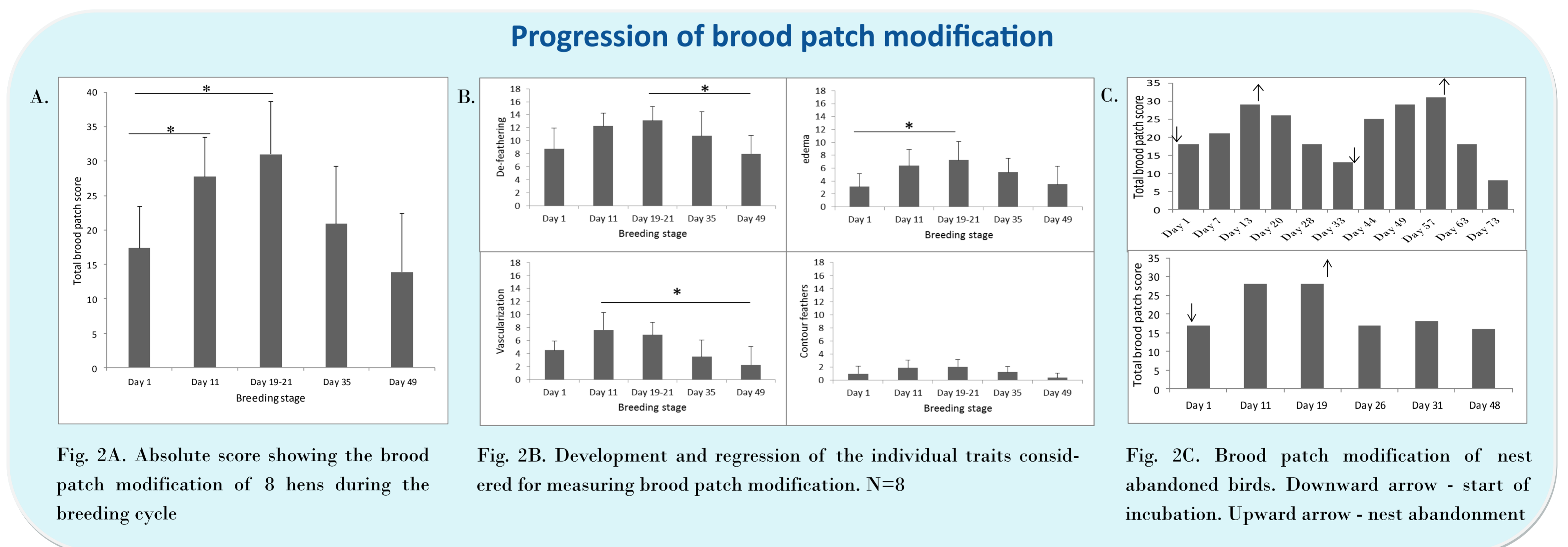
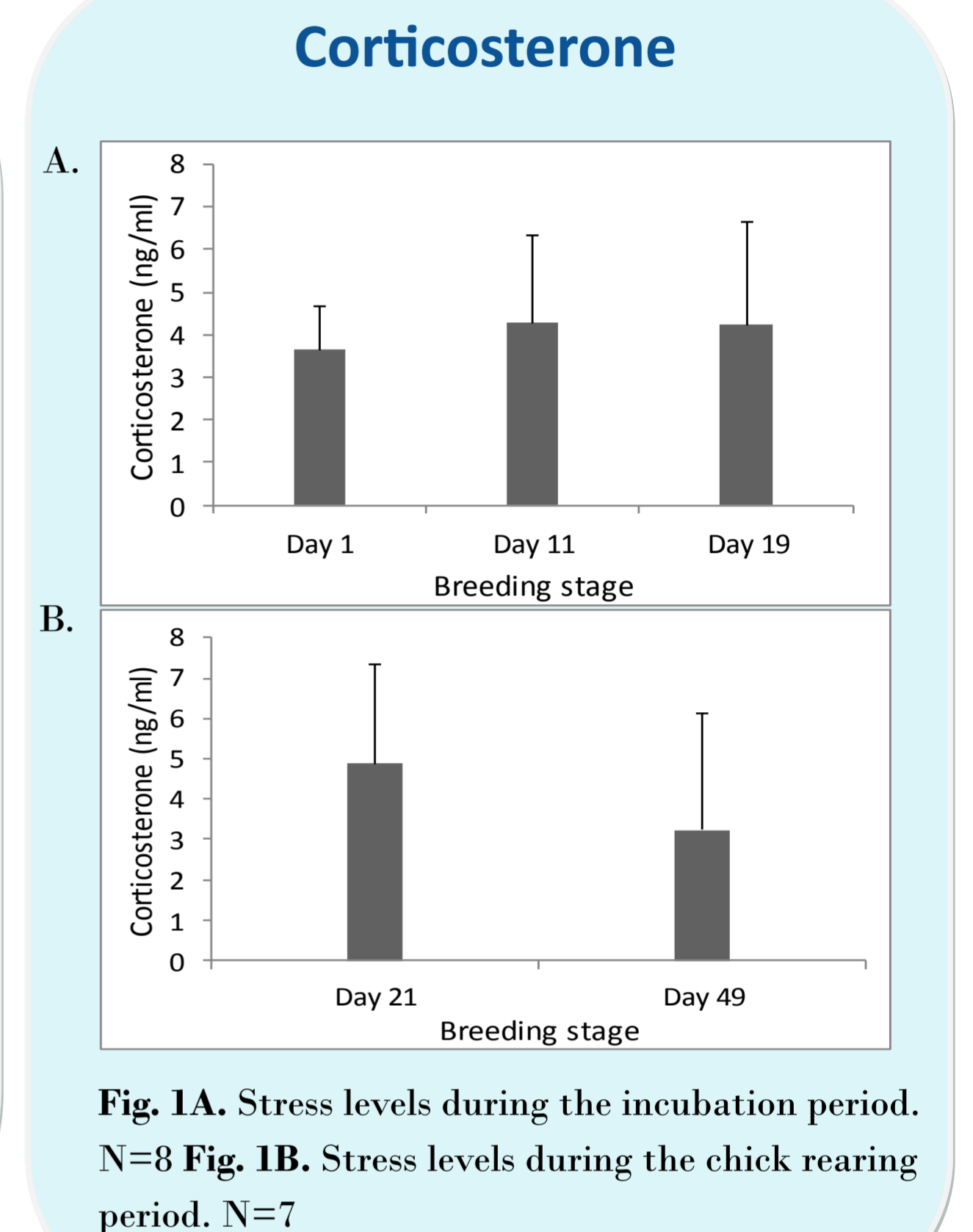
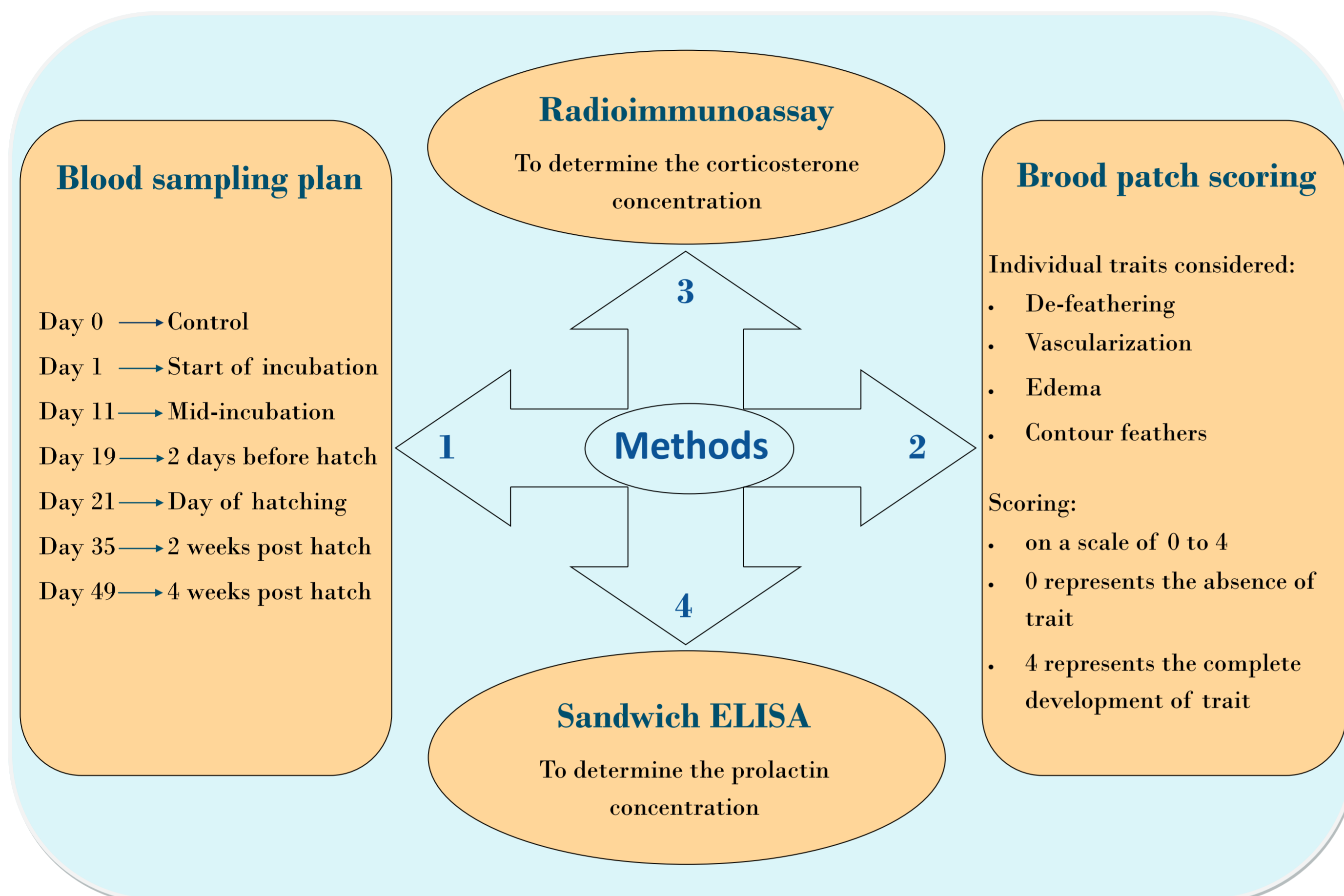
Contribution of hormones towards broodiness and brood patch modification in Red Jungle-fowls

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Morphological and physiological changes are a characteristics of birds during the reproductive cycle. Broodiness in birds is controlled by the interaction of various hormones. The brood patch plays an important role in mediating a positive feedback between the incubation behavior and hormonal secretion. This study aims to characterize the progression of brood patch modification during the breeding cycle, correlate the onset of broodiness with brood patch modification and to determine the stress levels at different stages of the breeding cycle.



Summary and conclusion

- This study shows that, in *Galliforms*, the initial stages of brood patch development occurs several days before the onset of incubation and a significant development of the brood patch occurs during the mid-incubation period
- De-feathering develops primarily and is the initial indication of brood patch development, followed secondarily by vascularization, edema and contour feathers
- No significance in stress levels were observed during the incubating and chick rearing stages for successful breeders. Could be that the successful breeders were able to attenuate the stress responses better while incubating compared to nest abandoned birds. Further research about the stress levels in nest abandoned birds with control over the stress factors causing them should provide insights in to it
- Unfortunately, we are unable to show the prolactin values here because the chicken prolactin ELISA kits we tested were unable to detect the prolactin in plasma

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