SUPPLEMENTAL DATA

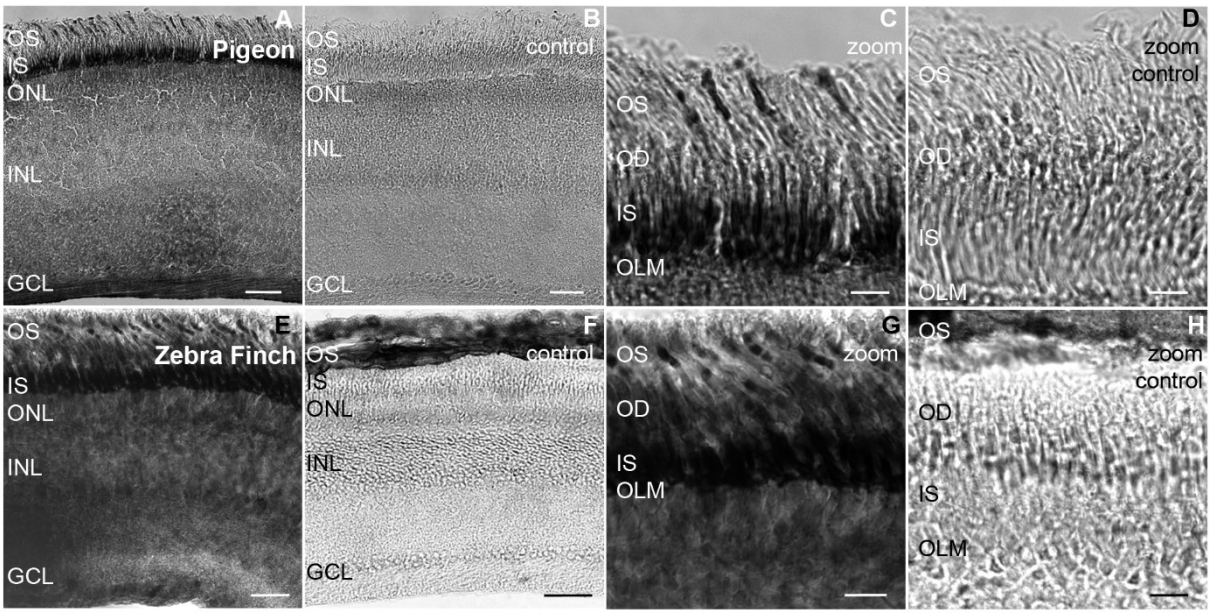

Fig. S1. Photoreceptor outer segment localisation of Cry1a is confirmed in additional bird species with the gwCry1a antibody. The antibody gwCry1a labelled specific photoreceptor outer segments with the DAB staining method in retinae of the pigeon (A, C) and the zebra finch (E, G). When replacing the primary antibody with the pre-immune serum in retinal cryosections of the pigeon (B, D) and the zebra finch (F, H) we did not obtain any immunosignal by antibodies that had already been present in the animal before immunisation. All images for the respective species were taken from the same experiment with identical microscope settings. Scale bars: A-B, F 40 µm; C-D, G-H 10 µm; E 20 µm. OS, photoreceptor outer segments; OD, oil droplets; IS, photoreceptor inner segments; OLM, outer limiting membrane; ONL, outer nuclear layer; INL, inner nuclear layer; GCL, ganglion cell layer.

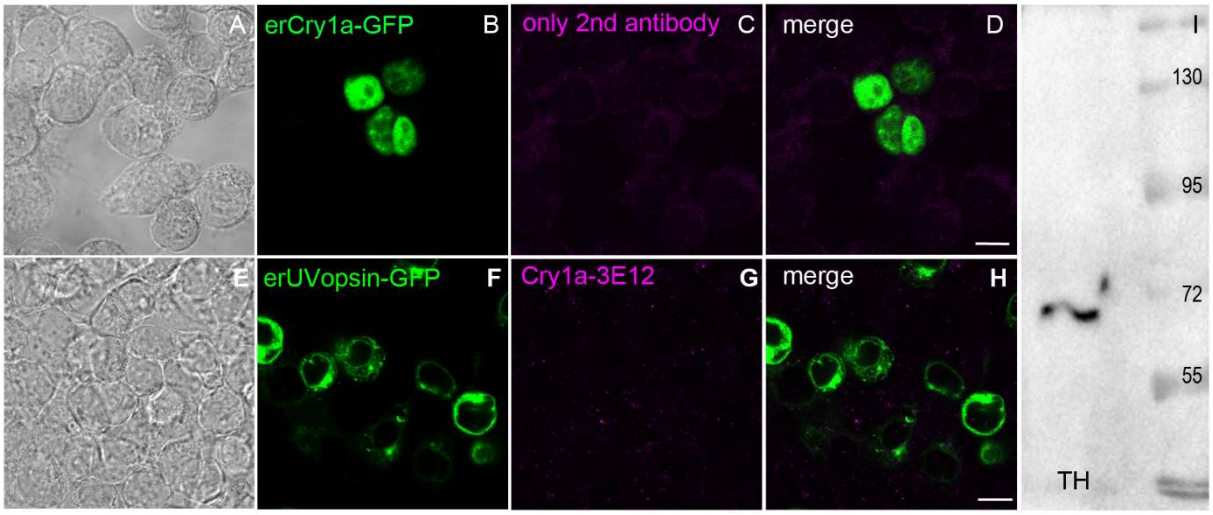

Fig. S2. Additional control for the Cry1a-3E12 antibody. When omitting the primary antibody on erCry1a-GFP transfected cells (A-D), no antibody signal was detected. In immunocytochemical stainings on erUVopsin-GFP transfected HEK cells, the monoclonal Cry1a-3E12 antibody did not recognise erUVopsin-GFP (E-H). In the immunoblot, the Cry1a-3E12 antibody recognised a band of the expected size (69.7 kDa) in total homogenate (TH) of the chicken retina (I). Images A-H are single confocal scans; all images for the respective species were taken from the same experiment with identical microscope settings. Scale bars: 10 µm.

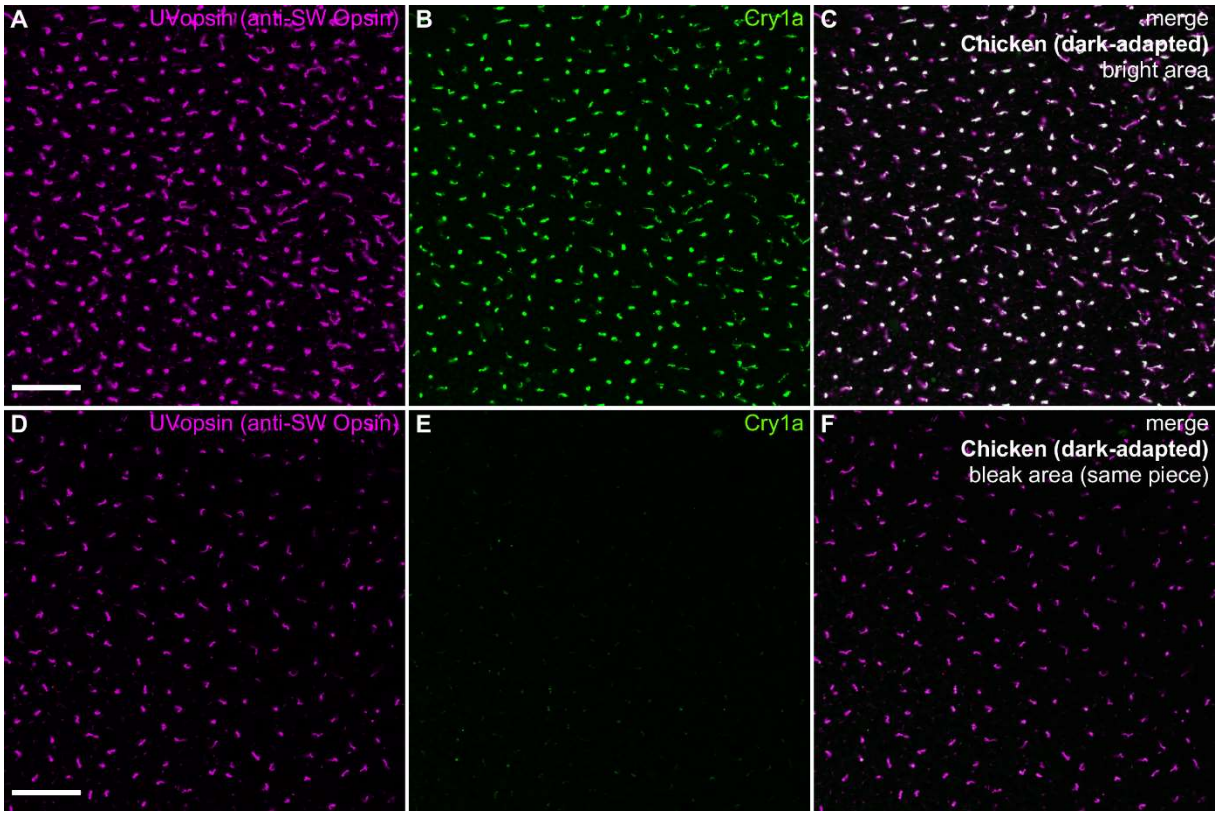

Fig. S3. Intensity of Cry1a labelling can differ within the same specimen. In the staining of whole-mounted retinae of the domestic chicken with the Cry1a-3E12 antibody (green) and the UV/V opsin antibody (magenta), we found that the intensity of both Cry1a and UV/V opsin can vary within the same retina piece. The intensity of the UV/V opsin labelling was not drastically different between the bright area (A) and the bleak area (D). However, the difference in the intensity of the Cry1a labelling between the bright area (B) and the bleak area (E) was striking. All pictures were taken at the level of the outer segments. All images for the respective species were taken from the same experiment with identical microscope settings. Images were maximum projections of confocal stacks: seven sections, step size 0.42 µm. Scale bars: 50 µm.