

Table S1. Glossary for brain sections.

Abb.	Full name	Abb.	Full name
A	anterior thalamic nucleus	Nllf	nucleus of lateral longitudinal fascicle
Cans	commissure ansulata	Nmlf	nucleus of medial longitudinal fascicle
CC	cerebella crest	NRP	nucleus of posterior recess
CC	cerebellar crest	OB	olfactory bulb
CCe	corpus of cerebellum	ON	optic nerve
CI	corpus interpeduncular	OT	optic tectum
CN	cortical nucleus	PGc	central preglomerular nucleus
CP	central posterior thalamic nucleus	PGc	central preglomerular nucleus
Cpost	posterior commissure	PGZ	periglomerular gray zone
D	dorsal telencephalon	PM	magnocellular preoptic nucleus
Dc	central zone of dorsal telencephalic area	PN	pretectal nucleus
Dd	dorsal zone of dorsal telencephalic area	PPa	parvocellular preoptic nucleus, anterior part
DIL	diffuse inferior lobe of hypothalamus	PPp	parvocellular portion of preoptic nucleus
Dld	dorso-lateral zone of dorsal telencephalic area	PVO	paraventricular organ
Dlv	ventro-lateral zone of dorsal telencephalic area	rec	hypothalamic recess
Dm	medial zone of dorsal telencephalic area	RI	inferior reticular formation
DP	dorsal posterior thalamic nucleus	RM	intermediate reticular formation
Dp	posterior zone of dorsal telencephalic area	SC	suprachiasmatic nucleus
E	epiphysis = pineal organ	tgt	tractus gustatorius tertius
EG	granular eminentiae	TI	longitudinal tori
gc	central griseum	tn	trochlear nerve (IV) < cranial nerves
gl	glomerular layer	TNa	anterior tuberal nucleus
H	hypophysis = pituitary organ	TS1	layers of semicircular tori
Ha	habenula	ttb	tecto-bulbar tract
Hc	caudal hypothalamus	ttbc	crossed tecto-bulbar tract
Hd	dorsal hypothalamus	Va	valvula of cerebellum
Hv	ventral hypothalamus	Vc	central nucleus of ventral telencephalic area
lfb	lateral forebrain bundle	Vd	dorsal nucleus of ventral telencephalic area
llf	lateral longitudinal fascicle	vDm	ventral region of Dm
LV	nucleus of lateral valvula	ver	ventriculus rhombencephalic area
LX	lobe of nerve	VI	lateral nucleus of ventral telencephalic area
MFB	medial forebrain bundle	VL	ventrolateral thalamic nucleus
ml	molecular layer of cerebellum	VM	ventromedial thalamic nucleus
mlf	medial longitudinal fascicle	vot	ventral optic tract
NG	glomerular nucleus	Vp	post commissural nucleus of ventral telencephalic area
NIII	nucleus of III nerve	Vp	posterior zone of ventral telencephalic area
NIXm	nucleus of nerve IX (motor branch)	Vs	supra commissural nucleus of ventral telencephalic area
nll	nervous opticus	Vv	ventral nucleus of ventral telencephalic area

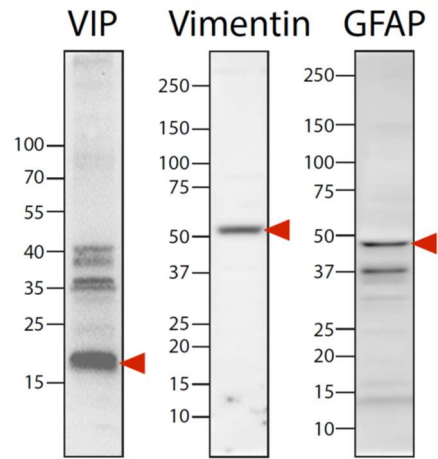


Fig. S1. Antibody specificities of anti-VIP, anti-vimentin, and anti-GFAP antibodies tested using whole protein extracts of brain. The specificities of anti-VIP-Alexa 647 (bs-0077R-A647, Bioss Inc.), anti-Vimentin-Alexa 647 (ab195878, Abcam plc), and anti-GFAP-Alexa 647 (ab194325, Abcam plc) were tested. Red arrows indicate the expected sizes of VIP, vimentin, and GFAP.

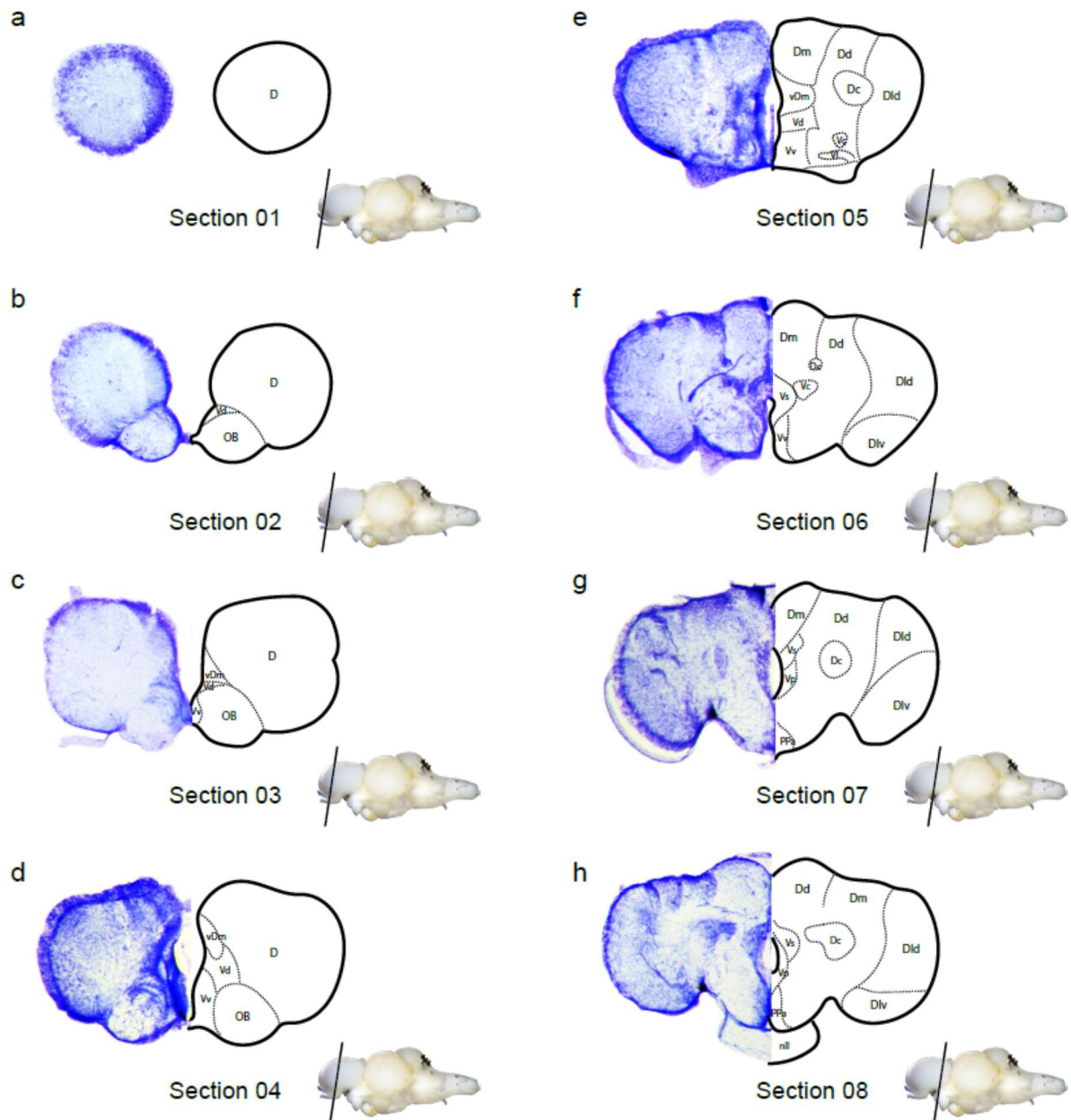


Fig. S2. Cross-sections of the telencephalic region of the turquoise killifish brain: a-e) sections depicting the olfactory bulbs of the ventral telencephalic region; f-h) sections depicting the hypophysis on the ventral brain.

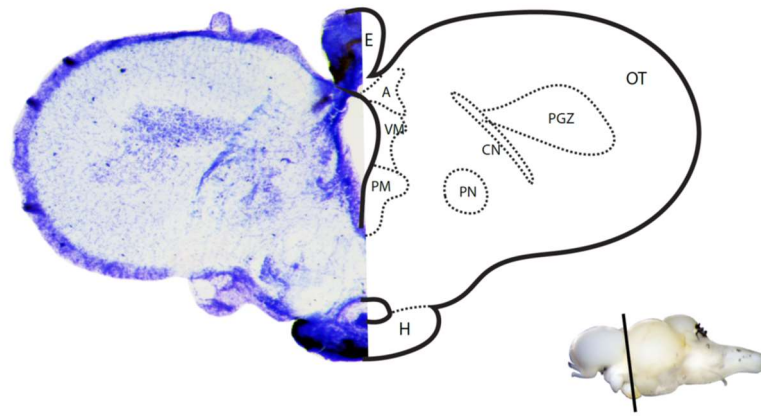


Fig. S3. A turquoise killifish brain section showing both the hypophysis and the epiphysis.

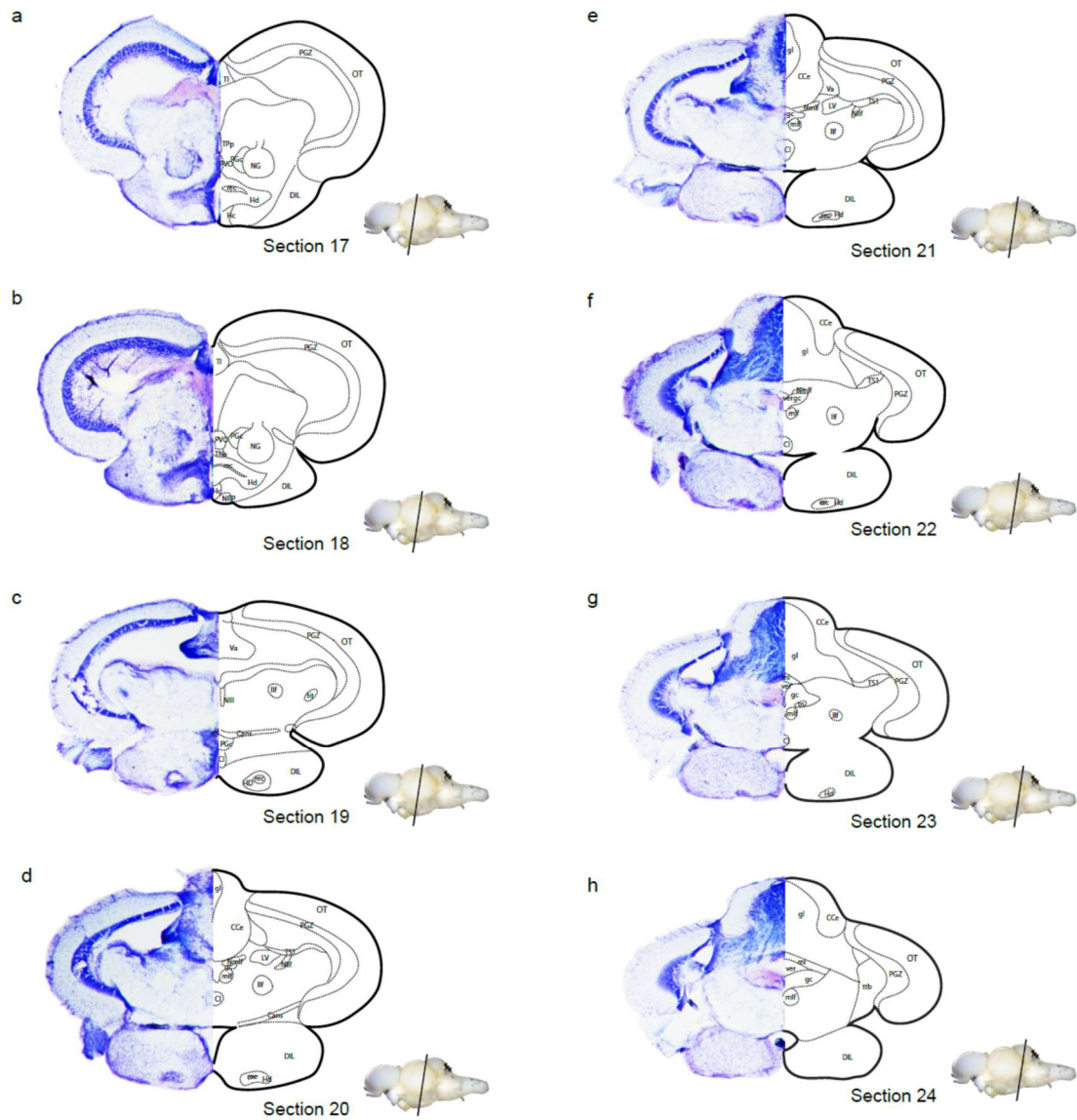


Fig. S4. Cross-sections of the killifish brain: a-e) sections depicting the optic tectum and diencephalic regions; f-k) sections containing the cerebellum; l-r) sections of the rhombencephalic area.