

GALAXIAS

Galaxias is being developed on Bunurong Country. I acknowledge its Traditional Owners, the Bunurong/Boon Wurrung people of the Kulin Nation, and honour Elders past and present.

I recognise Bunurong people's enduring cultural relationships with these lands and waters, and their continuing care for the wetlands, waterways and interconnected life they sustain.

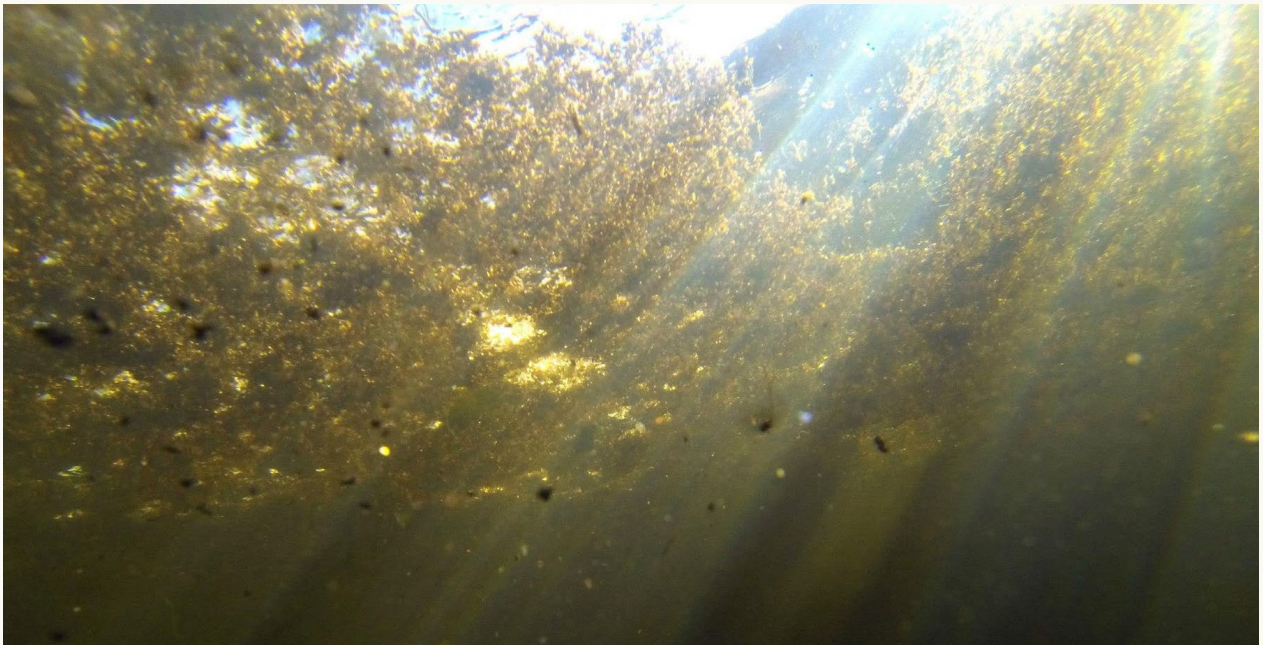


Figure 1. There is beauty in the seemingly ordinary. (D Phillips)

GALAXIAS

David Phillips | ecoLogic arts

The extraordinary lives of the ordinary aquatic world

Experience the unique lives of the creatures of a Victorian freshwater ecosystem. Inhabit their bodies: move like them, sense the world like them, work out what it takes to survive.

Galaxias is an immersive, experience-forward game about inhabiting a place rather than conquering it. A creek or wetland might look unremarkable from the bank, but to inconspicuous invisible creatures that live below it is a dynamic, complicated environment. A fallen leaf becomes an important shelter. Water weeds and sedges are like towering forests.

The stage of development proposed here concentrates on two playable perspectives: the dwarf galaxias and an adult dragonfly. One offers an intimate, vulnerable, exploratory experience. The other offers fast, demanding aerial hunting. Both occupy the same habitat and use familiar controls but require players to learn very different ways of moving, looking and surviving.

Current proposal

The proposed outcome is a small, playable Unity prototype: two contrasting creatures, one shared habitat, and a limited set of interactions that make those experiences convincing. The work will develop the movement, sensory presentation and original assets needed to test the idea with players. It is not a proposal to complete the full game or build a comprehensive ecological simulation.

Existing ideation

An exploratory browser prototype has been used to investigate underwater environments, swimming, organism interactions and panoramic dragonfly vision. These experiments have helped establish the creative direction and have broadly served as a proof-of-concept for gameplay, immersion, aesthetics and scale. Locomotion, visual consistency, performance and the reliability of interactions still require work. The funded Unity prototype is a proposed as the next step, not an existing production build.

Reading this document: the opening sections describe the experiences, sensory design and ecology. Later sections cover sound, development, outcomes, the proposed February–September 2027 timeline, budget and future prospects. Photographs and notes sit alongside the relevant discussion; the closing index identifies supporting material.

Two contrasting elements

The dwarf galaxias

The proposed fish experience centres on a threatened Victorian native fish, the dwarf galaxias *Galaxiella pusilla*. At its tiny scale, the shallow, densely vegetated margins of a wetland become a landscape of passages, refuges and exposed crossings. The player must discover the signs of danger, where prey can be found, when to attack and when it may be safer to wait.

A typical encounter might begin under leaf litter. The telltale signs of microscopic prey are just visible beyond the cover, but a direct route is across an exposed, well-lit bed; experience dictates this area is patrolled by a formidable predatory diving beetle. The player can risk the crossing outright, or slowly dart between patches around the sheltered edge, or perhaps just wait for prey to come closer. A more experienced player might eventually learn the rhythms of the beetle, that must return to the surface when its diving air bubble is depleted. Feeding requires strategy, assessment of risk, and management of energy costs to acquire the prey, rather than simply moving towards a floating food icon.

The challenge is not to make this tiny fish capable of overcoming everything around it. Some currents are too strong; some animals are too fast. Players become more capable by learning the environment and recognising opportunities within the limits of their body. Familiarity with a patch of vegetation, or understanding the defensive responses of microscopic prey, can matter more than speed or strength.



Figure 2. This is as big as they get. D Phillips



Figure 3. *Galaxiella pusilla* with characteristic spawning coloration (D. Phillips)

The adult dragonfly

You begin your experience centimetres above the same recognisable waterbody that you have explored as a tiny fish. But the dragonfly changes the pace and the apparent scale of the same place; a journey that took the fish several minutes takes the dragonfly a few seconds. The intended dragonfly experience is an aerial dogfight. The gameplay demands much more of the player in terms of rapid perception and control but remains beautiful and naturalistic in its presentation.

From a stem above the water, the player scans for small insects. A launch becomes a pursuit; following directly behind the prey may result in an overshoot, while cutting across its path can produce a successful interception. Hovering, braking and rapid changes of direction give players ways to recover and attempt another pass. Perching provides a pause in the action and a position from which to observe again. There are no targeting boxes or automatic lock-ons. The prey must be recognised through its movement and captured through the player's flight. The aim is to make the animal's capabilities enjoyable to use, without turning it into an aeroplane wearing an insect model.



Figure 4. Dragonfly wing detail (D Phillips)

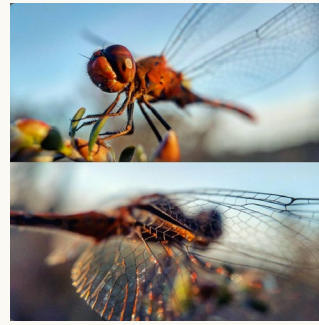


Figure 5. Adult dragonfly - undetermined species (D Phillips)

Different challenges in the same environment

The shared habitat provides continuity between the experiences. The dense stand of impenetrable *Typha* that obstructs a fish's passage across a waterbody is key for a dragonfly's hunting regime. A dense meadow of *Persicaria* provides a primary refuge for the dwarf galaxias; above the water, the same plants obscure the flight paths of dragonfly prey, making capture more onerous. The contrast is not simply between slow and fast play: it is between what the same environment allows different bodies to do.



Figure 6. Habitat perspective (D. Phillips)

Player and play

Animal phenomenology

*"An organism has conscious mental states if and only if there is something that it is like to **be** that organism – something that it is **like** for the organism."*

- Thomas Nagel

Changing species should change the information available to the player, not just the appearance of the character. In the fish experience, limited visibility, cover, and hydrology determine what can be seen and how confidently the player can move.

Fish possess a 'lateral-line system'; a series of sensory cells lining channels beneath the skin that detect changes in water pressure, movement, and vibrations. Core functions of this sensory system include determining nearby water direction and speed, sensing movement of predators nearby, and even following hydrological disturbance trails of prey in the dark. Further development aims to incorporate this into what it is like to be the dwarf galaxias.

With eyes placed on the side of their head, the field-of-vision of fish is much wider than that of humans. A standard first-person perspective in games is around 90 degrees. Initial experimentation with dwarf galaxias field of view determined 140 degrees as being a suitable compromise between playability and accuracy.

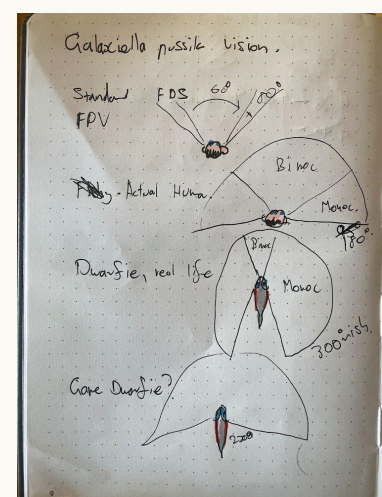


Figure 7. Notes on field of view.

In the dragonfly experience, a more radical approach is used to capture the uniqueness of not only their eyes, but the neurological systems that process vision. Many species of dragonfly have a near full range 360-degree field of vision. They experience extended spectrum of colour not available to either human or fish. Their astonishing visual processing speed allows them to respond to fast moving arial prey.

The existing dragonfly experiments use a continuous panoramic view, with an experiential setting around 260 degrees. Players acclimate to tracking prey on the screen that is either in front of them or behind them. Further experiments have explored colour treatment inspired by a wider visual spectrum, highlighting polarised, UV and near infra-red light. Brief slow-motion moments during flight allow for the response time needed to achieve the high speed; an analogue to their dragon fly's astonishing visual processing speed.

While these phenomenological interpretations are grounded in real biology, they are not claims to reproduce an animal's subjective experience. Their value is judged by whether they help players learn a different way of observing and acting in the world, for both gameplay challenge and immersion.

Naturalistic feedback

The default presentation replaces conventional HUD displays with feedback from the body and environment. The direction of moving particles can make a current apparent. Vegetation passing close to the camera can convey speed. The movement of prey against a background can invite a pursuit without an arrow announcing a target.

This does not mean making the game deliberately obscure. Separate natural-history notes will offer explanations and guidance without interrupting live play. Optional assistance and camera settings will be developed alongside the immersive presentation rather than treated as a contradiction of it.

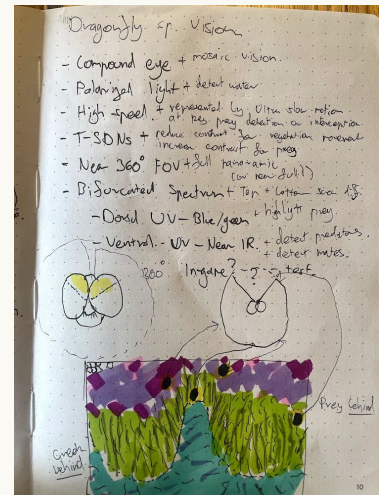


Figure 8. Notes on dragonfly sensory experience.



Figure 9. Underwater reference — the surface viewed from below.



Figure 10. *Nanoperca australis* amongst suspended particles (D Phillips)

Learning without restarting the world

The intended response to death is a transfer to a nearby individual of the same species. The player can learn from a failed crossing or missed warning without the habitat resetting around them. Failure matters within the encounter, but does not end the opportunity to explore. Through the subsequent play in a different species, the player may glean more information about the prior and therefore be able to adapt their play accordingly.

This continuity is a proposed mechanic to test in the funded prototype, rather than evidence of a complete population simulation. A small, controlled population can establish whether the transition preserves immersion and makes failure understandable. The wider world does not need a simulated life history for every individual to test that experience.

Player diversity

The project is intended for people drawn to exploration, natural history and discovering an unfamiliar form of movement and sensory experience. The contrast between fish and dragonfly not only provides variety but also provides different experiences for players with different sensory tolerances.

The existing narrower camera option gives the project a practical starting point. Further accessibility priorities will include adjustable sensitivity, reduced camera movement, remappable controls and optional guidance. These are intended development priorities, not a claim that the present prototype is already accessible to every player.

Naturalistic presentation will remain the default, but assistance should be available when a player needs it. Important feedback should not rely exclusively on a subtle colour difference or a sound. The separate natural-history notes can explain unfamiliar interactions without covering the live experience with instructions.

My teaching experience will inform how players are introduced to unfamiliar controls and how testing distinguishes useful uncertainty from simple confusion. I will seek feedback from people with different levels of game experience and relevant access needs. This is a practical testing aim, not a claim to represent every group through a small sample.



Figure 11. The night triggers significantly different NPC programming (D. Phillips)

A game ecosystem

Ecology

The eventual game will represent a specific freshwater habitat with a realistic mix of organisms. Its geology, channels, substrates, vegetation and water movement will be as closely modelled to represent that of its indigenous ecosystem. Their inherent interactions provide a catalyst for the development of meaningful game mechanics

Distances can be condensed where that makes the game more playable. A silty backwater, a shallow flooded margin and a more open channel can be closer together than in the reference landscape to maximise playability, provided the arrangement still makes sense. The point is to preserve the relationships that create those habitats in a way that supports the underlying game logic, not make the player travel an uneventful distance to reach them.

The physical qualities should be readable at the animal's scale. Fine sediment can be disturbed and obscure a view; coarser material belongs in different hydraulic conditions; organic litter changes the structure of a flooded margin. This stage will select a manageable set of these relationships rather than attempt complete sediment transport or catchment modelling.

Direct data collection

My existing ecological research and data has connected observations to game design decisions: how an organism moves, where it finds cover, which interactions matter, and which simplifications or abstractions promote gameplay enjoyment. Existing photographs, underwater video and scientific data have provided initial reference material.

Further field visits will target the gaps that matter to production by building a reference collection of substrates, organisms and other environmental features. Textures and suitable stationary habitat features can inform original assets and selective 3D reconstruction. For moving animals, photographs, anatomical reference and behavioural video will guide modelling and animation, providing convincing tail strokes, turn, and bursts animations.

The reference collection will record what was observed, where it came from and how it has been interpreted. It will distinguish a field observation from a design assumption. Substantial field capture will follow the choice of reference habitat and the access or permissions required. Any required permits will be obtained from Parks Victoria or DEECA.



Figure 12. Underwater reference — submerged roots and streambed.

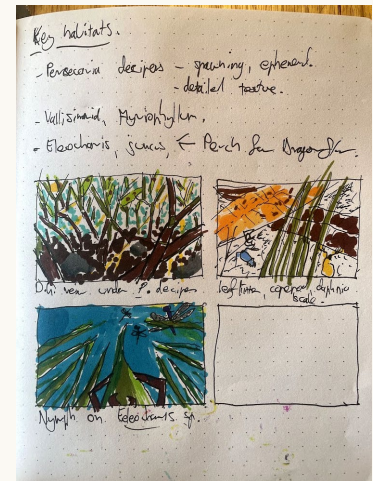


Figure 13. Scale and presentation of habitats



Figure 14. *Galaxias brevipinnis* can climb out of water to access upstream habitats (D Phillips)



Figure 15. Capturing the fin movement of *Galaxias maculatus* (D Phillips)

Selected frames from the supplied motion study.

First Peoples participation

The connections to country inherent in this project are obvious and important to me and have not escaped consideration. This proposed initial design is not specifically tied to a particular region of Victoria; the species present could come from any coastal traditional nation area between Gunaikurnai in the west to Gunditji Mirring in the east. The future aim, beyond the scope of this proposal, is that the game environment(s) will model and represent specific catchments from Victoria. At that point, Traditional Owner collaboration regarding place names, names for flora and fauna, and interpretation of country would be prioritised. Any inclusion of language, cultural knowledge, stories or music would require an appropriately developed collaboration. No such partnership or consent is assumed in this proposal.

Sound design and supporting video

Existing creative practice

In my electronic music work I regularly used recordings collected in the field. Percussion was often built from splashes, rustling vegetation, hydrophone recordings, and other small environmental sounds. Compositions were undertaken with specific ecological phenomenon in mind. Galaxias brings that way of working into a world that the player can inhabit.

The accompanying sound examples come from this practice. They are demonstrations of composition and sound design, not a finished Galaxias soundtrack. Some are incomplete demos. Their relevance is in the treatment of environmental material, the development of texture, space and movement, and the relationship between small sounds and a larger musical structure.

Sound heard by body in a place

The game's audio should support the sense that water is a physical medium and that different bodies encounter the same place differently. Movement, contact with vegetation and changes at the surface offer opportunities for feedback that feels part of the world rather than a notification layered over it.

I want to explore a relationship between recognisable environmental sound and more abstract composition. A texture may be musical without announcing itself as a melody; a small recorded sound may become a rhythmic element without losing its material character. The purpose is not to provide a continuous dramatic score, but to find when music deepens the experience and when it should leave room for the habitat.

This stage will establish a limited palette and test it in the two playable perspectives. A complete adaptive score is outside the immediate scope. Original recording sources and any third-party material will be documented, with clearance checked before material is incorporated into a production build.

The provided video demonstrates a range of gameplay and environment design experiments. They are produced with a combination of my visual reference materials, some blender modelling, and significant AI generated placeholders. These assets have just been used to provide for rapid proof-of-concept experiments and circumvent current equipment limitations. My absolute explicit intention is to limit these to the now complete early concept testing phase; any assets developed from this point will be reconstructed with humans at the centre of the design.

Concept video demonstration

The video moves from above the changing waterbody, into the water to observe the fauna and their niches. Action then moves into the fish's experience, and eventually towards the emergence of the nymph from the water that transforms into the adult dragonfly and its unique experience of flight. It is intended to show atmosphere, scale and the relationship between contrasting experiences, rather than function as a checklist of completed features.

Edited footage, timelapses, authored animal sequences and gameplay examples serve different purposes. The video's score, while an original work of mine using the aforementioned practice, is distinct from audio for the in-game experience and is intended for the specific purpose of the demonstration only.

Creative leadership and skills development

David Phillips | ecoLogic arts

My background combines aquatic ecology, technical project work, teaching game design and electronic music production. These are not separate themes added to the game. They provide the ecological interpretation, systems thinking, learning design and sound practice from which it is being developed.

My ecological and technical experience includes project management, platform design, database management, GIS and programming. This is relevant both to interpreting the habitat and to organising a project with many connected systems. I can develop reference briefs, identify ecological inconsistencies, organise information and make decisions about which relationships the game needs to represent.

I have taught game design for approximately ten years, including Unity work through an AIE program for middle-school students preparing for animation and game-development qualifications. Teaching has required me to break unfamiliar processes into workable tasks and support learners with different levels of confidence and experience. My production-level Unity skills are still developing, so technical review and targeted engineering support are part of the delivery plan.

My music work included establishing a small record label, vinyl releases and BBC Radio 1 play. That experience involved learning technical creative processes independently and taking work beyond private experimentation. The accompanying CV and sound portfolio provide the detail behind these claims.



Figure 16. The author and colleague surveying fish in the Victoria High Country (Photo C. Bloink)

Scope of specialist contractors

I will lead the creative direction, ecological design and coordination. The proposed support covers Unity mentoring and technical review, targeted engineering, creature modelling and animation, habitat technical art, and independent testing. These are scoped contributions, not an assumed full-time studio team. Contractors and their availability remain to be confirmed.

Professional development roadmap

I need to understand and maintain the project, but should not ask a funded prototype to carry all of my technical learning. Personal study and general training remain separate from productive work, whether paid or contributed in kind. Mentoring should help me make sound decisions and recognise when a task needs specialist implementation.

The main development goals are a repeatable Unity workflow, better understanding of animation and asset integration, practical performance profiling, and more disciplined scope and milestone planning. By the end of this stage, I want to be able to brief contributors clearly, integrate their work, interpret testing results and maintain the next version of the prototype without starting over.

Building a maintainable prototype

Unity prototype

The browser tests have been useful because ideas can be tested quickly. Development in Unity will begin by identifying which experiments are worth carrying forward, checking their technical demands and agreeing the smallest version that demonstrates the two playable perspectives.

The first review with technical and art specialists will settle a small shared habitat, a limited supporting cast, the required creature rigs and the priority interactions. The project will not assume that every browser feature can be transferred directly.

Managing iterations

Species information, movement, behaviour, camera presentation and visual assets should be organised so that one can be revised without unnecessarily rebuilding the others. Replacing a temporary fish model should not require rewriting how that fish finds cover or responds to a threat. Rig and movement requirements will be agreed before commissioning detailed creature assets.

Development will proceed through short, playable tests. A fish crossing between two refuges, a dragonfly launching and intercepting prey, or a change between camera modes can each be reviewed before more content is added. Versioned builds, a short issue list and recorded test observations will make the result of each change visible.

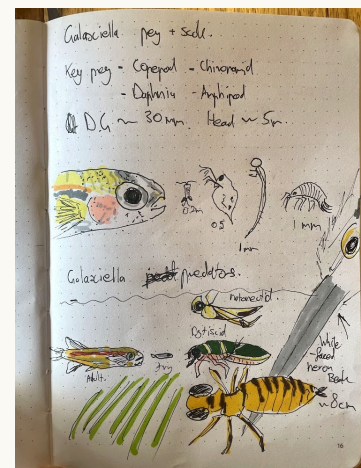


Figure 17. Scale of prey and predator NPCs

Original production assets

Generative tools have supported coding and temporary assets during the early experimentation phase. While these assets have always been placeholders, they have also served a purpose in refining what makes a good model. A plausible-looking generated model is not necessarily anatomically coherent, and the limitations in rigging and animating have helped to foreshadow the appropriate design of models.

The intended production direction is original, human-developed creature models and environmental assets informed by field documentation and scientific reference. This funded stage will establish and test that workflow for a bounded set of assets.

An asset register will record source, licence, modification and replacement status.



Figure 18. Field reference — a crustacean shown against a hand for scale.

Performance is part of the experience

Tests will use a defined development and target-hardware profile, not only the high-end computer used for filming. The number of active organisms, rendering effects and environmental interactions will be adjusted against actual measurements. Stable movement and readable prey are more valuable than additional detail that makes the camera stutter.

Outcomes of this development stage

The purpose of the stage is to establish whether two different bodies can make a small shared habitat compelling to explore and master. It should finish with something playable, a tested production method and a more reliable understanding of what further development will require.

Outcome	Evidence at the end of the stage
A bounded Unity prototype	A shared habitat with playable dwarf galaxias and adult dragonfly perspectives; the required supporting prey and threats are limited to the interactions being tested.
Two readable interaction loops	Fish: navigate cover, approach prey, attempt capture and respond to danger. Dragonfly: perch, launch, pursue, intercept and recover from a missed attempt.
An original-asset workflow	Protocols for selecting and recording field reference material. Development of bounded set of game-ready creature and habitat assets, with rig requirements and asset origins documented.
An evaluated next step	Playtest findings, a performance review, known limitations and a scoped plan for further development, alongside evidence of the skills gained during the stage.

Review sequence

First, I will confirm the scope, reference approach, technical structure and asset briefs with the relevant specialists. Next, establish basic movement and interactions in a simple habitat before committing to detailed visuals. Then, integrate the selected art and sound material, refine the sensory presentation, and conduct independent playtesting. The final review will identify what to retain, revise or leave for a later stage. Dates and work allocations will be set out in the accompanying development timeline and budget.

Playtesting focus

Can a new player recognise cover, danger and prey without the designer explaining each encounter? Does a missed capture lead to an understandable second attempt? Does the panoramic view help players act, and can the comfort option provide a worthwhile alternative? Does movement feel coherent on the intended hardware?

Limitations

This stage does not include dozens of playable species, complete life cycles, seasonal population modelling, multiple catchments or a finished museum installation. Nymph emergence and moulting may be explored in authored presentation material, but a complete playable dragonfly life cycle is not a core deliverable. The budgeted specialist time will be used to make the two selected adult experiences work, not spread across the full long-term vision.

Development timeline

Proposed start: 1 February 2027. Proposed completion: 30 September 2027. This is an eight-month, part-time production plan, subject to funding, executed agreements, payment conditions and specialist availability. The September finish is a planning proposal, not a previously agreed deadline.

The first task is to reduce the browser experiments to the smallest shared habitat that can support two convincing playable perspectives. Detailed assets follow movement and interaction tests, once the requirements and their costs are understood.

Period	Work and evidence	Decision before proceeding
1–28 Feb 2027	Scope and production setup Agree the two-creature scope, reference plan, hardware profile, technical structure and asset briefs.	Approve minimum scope before detailed assets.
1 Mar–30 Apr 2027	Movement and interaction tests Fish and dragonfly loops in a simple shared habitat; early rigs and camera experiments.	Both loops readable before art expands.
1 May–30 Jun 2027	Original assets and references Bounded creature rigs, selected habitat assets and documented reference sources; first integrated art pass.	Accept rigs and assets against agreed limits.
1–31 Jul 2027	Integration, sound and access Integrated prototype, initial sound palette and priority camera/comfort/control settings.	Feature freeze; defer extra species.
1–31 Aug 2027	Independent testing and fixes Observed playtests, hardware profiling and prioritised fixes; selected asset corrections.	Blocking defects take priority.
1–30 Sep 2027	Stabilisation and delivery Verified build/source, rights and asset register, test summary, final reporting and next-stage scope.	Final review and delivery.

Capacity and timing

The plan allocates 496 productive hours of my time across the stage: 96 paid hours and 400 hours contributed in kind. This averages approximately 14–15 hours per week. Personal study, broader business development, and general training are additional and unvalued.

September is retained for verification, residual defects and delivery. If a feature cannot be made reliable within the agreed time and cash, it will be simplified or deferred. No new species or complete life-cycle system is required to complete this stage.

Budget and resourcing

The revised stage budget is \$62,500: a \$42,500 VicScreen cash request and a proposed \$20,000 contribution of my own productive time. The in-kind contribution is not money available to pay contractors, buy equipment or cover a cost overrun.

Work package	Cost basis	AUD
Unity mentoring and review	6 days × \$850	\$5,100
Targeted specialist engineering	10 days × \$850	\$8,500
Creature art, rigging and animation	16 days × \$650	\$10,400
Habitat technical art and integration	6 days × \$650	\$3,900
Independent testing and verification	4 days × \$750	\$3,000
My paid ecology design and coordination	12 days × \$400	\$4,800
Development hardware	System \$2,600; working storage \$250; backup media \$150	\$3,000
Field references	Travel \$400; access/permits \$200; equipment hire \$300; consumables \$100	\$1,000
Software, licensed assets and storage	Tools \$350; supporting assets \$250; cloud/storage \$200	\$800
Solicitor's chain-of-title opinion	Unquoted planning allowance	\$1,200
Public liability insurance	Unquoted planning allowance	\$800
Total cash request	No additional applicant cash assumed	\$42,500
My additional productive time	50 eight-hour days × \$400; non-cash	\$20,000
Total stage resources	Cash and in-kind together	\$62,500

The accompanying official workbook expands these work packages into 42 cost lines with tasks, quantities, rates and indicative timing. Rates and purchases remain estimates rather than quotations. Allocations are for a tightly bounded prototype, not every creature, effect or interaction in the browser build.

Victorian expenditure is provisionally forecast at \$61,700, including \$20,000 in-kind. The planning assumption is Victorian specialists and local hardware, field, legal and insurance suppliers, with software/cloud provisionally outside Victoria. This is not verified supplier expenditure.

Applicant contribution and delivery controls

I propose to contribute 50 additional productive days, valued at the same \$400 daily rate used for my paid work. At eight hours per day, this is 400 hours at \$50 per hour. It is labour contributed to this stage, not a deferred invoice or the retrospective value of concept work already completed.

Additional productive work	Days	Value AUD
Ecological reference analysis and encounter iteration	10	\$4,000
Hands-on prototype implementation and integration	18	\$7,200
Internal testing, tuning and defect reproduction	8	\$3,200
Original sound palette, editing and integration	6	\$2,400
Versioning, documentation and handover	5	\$2,000
Field-reference capture, sorting and annotation	3	\$1,200
Total in-kind contribution	50	\$20,000

The separate 12 paid days cover ecological design and commissioned-asset briefs (4 days), contractor coordination and acceptance reviews (5 days), and milestone evidence and reporting (3 days). Each hour will be recorded against a task and identified as paid or in kind. No hour will appear in both allocations. Personal learning, general business development and prior prototype work are excluded.

Managing limited cash

There is no unallocated cash contingency. Within existing work packages, \$3,100 is assigned to engineering rework (2 days), asset corrections (1 day) and regression testing (1 day). These are planned tasks, not an extra reserve.

Before committing to major expenditure I will confirm quotations, availability, delivery briefs, tax treatment and any applicable on-costs. Where costs rise, non-essential work must be reduced or deferred rather than further funding assumed. Temporary access to a filming computer does not provide dependable production access.

Task-specific paid technical reviews should complement rather than duplicate any support provided through VicScreen. Legal and insurance allowances, rights arrangements and grant payment conditions remain to be confirmed before relevant commitments are made.

Budget basis: supplied draft dated 16 October 2026; proposed February start and approximately \$20,000 in-kind offer. The detailed allocations and eight-month duration are planning assumptions open to review.

Further Prospects

A route to further development

The immediate public proposition is a creative game, rather than a tool primarily designed for formal education or research. Scientific knowledge supports the experience, but players should want to inhabit it without needing a lesson or conservation message to justify the time they spend there.

After this stage, the prototype and testing evidence will support decisions about a larger playable slice, further funding and appropriate development collaborators. Funding and partnerships are possible next steps, not secured outcomes. A wider range of playable organisms would follow only once the production cost and value of the first two experiences are understood.

The blue/violet sky vision

I have several ideas for a very grand version of this game, where the same habitat is explored for dozens of unique organisms. Play of each species fleshes out the world from a myriad of perspectives. Last sessions formidable predator becomes this session's direct player experience. The life of a strange NPC animal is revealed as the player steps into their unique senses and challenges. In my own notes I have referred to the unique sensory interpretations of each animal, along with the player feedback and control mechanisms, as their 'phenomenological set'. Outlined here are a selection of two examples of potential gameplay experiences:

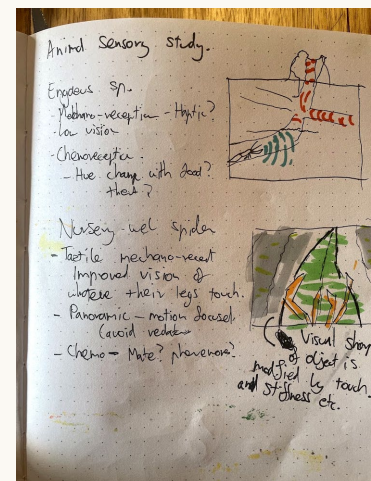


Figure 19. Preliminary ideation for 'phenomenological sets'.

- The Platypus has a limited visual experience. Additionally, they close their eyes completely when hunting underwater. Here they rely on electroreception, vibrations, and importantly, a memory of their local hunting grounds. As they dive, their memory could be represented by a grey, dull abstraction of the surroundings that may or may not be currently accurate, and can be updated when things change (like after a flood event). Returning to the surface to breathe allows a window to further establish the players whereabouts with open eyes. Electro reception of buried prey would be represented on screen when sources are close to the animal's bill. Sweeping through substrates to scatter prey would amplify this visual.
- Nursery-web spider is large water-walking spider that specialises in hunting and nesting in long reeds surrounded by water. Like the dragonfly they have a wide field of vision; however, it is tuned primarily to detecting the movement of predators. The nursery-web spider's feet are ultra-sensitive to vibrations, which they use to discern prey movements; the game could represent this by significantly enhancing the visual detail of the surfaces the spider is touching. 'Colours' on the screen would relate to the vibrational resonance of these objects. A core game mechanic would be casting webs between vegetation to increase the areas you can 'see'/feel, mimicking a tactic the spider uses. Spiders also use chemoreceptors on their feet for detecting changes in environment, and the presence of mates.



Figure 20. Giant water bug - potential boss fight? (D Phillips)

The existing two experiences also have room for further extrapolation of both their phenomenological set and additional gameplay. For the dwarf galaxias, gameplay challenges may include surviving as a tiny small fry just watched from an egg; navigating the challenge of constricting habitat during dry periods; finding suitable crayfish burrows to escape the worst droughts and, successfully finding and spawning in appropriate habitat in the height of late winter. Development of providing an abstraction of the fish's lateral line system through either visual interference or sound is also an avenue of interest: sound design could be used to 'listen' to the water, with supplementary controls for narrowing the distance and direction the player chooses to focus on.

Public experiences

There may also be a place for Galaxias in festivals, exhibitions or natural-history settings. A short encounter with one organism could offer a different public experience from a longer home-play session. Any such version would need its own access, control, maintenance and audience brief rather than being assumed to be a simple repackaging.

Future field-to-game material could show how an observed habitat or movement became part of the game. Public promotion and showcase activity are later-stage plans, not tasks charged to this prototype-development stage. Early playtesting is intended to answer development questions. No exhibition, publisher or institutional relationship is presented as confirmed.

Support materials index

Support materials M1 and M2 are accessible at:

<https://galaxias-media.dtpgames.com/>

M1 | Prototype film and gameplay recordings

Shows the intended atmosphere, scale and contrasting perspectives. Individual clips can demonstrate a particular control, camera or interaction.

Backup direct video link: [Galaxias concept reel](#)

M2 | Sound design and composition examples

Selected earlier work demonstrating field-recording techniques, texture and composition.

M3 | Production and team documents

The accompanying budget, development timeline and CV provide the financial, scheduling and professional detail behind this proposal.