Weekly Progress Report

What Did You Do?

Agent Documentation & Figures

- **Complete developer documentation** covering architecture, components, setup, and troubleshooting
- **High-level flow diagram** showing system architecture from user query to response
- **Component descriptions** for all 6 core modules (extractor, resolver, planner, executor, logic layer, formatter)
- **API integration guide** documenting all 8 ALA endpoints used

What Problems Are You Facing?

Parameter Extraction Gaps

- **Generic common names fail**: "kangaroo" doesn't resolve (needs "Red Kangaroo")
- **Incomplete temporal extraction**: "from 2020" not extracted, but "in 2020" works

Multi-Word Name Resolution

- Scientific search matches partial terms incorrectly (e.g., "Red Kangaroo" → matches virus genus "Red")
- Fixed with heuristic: multi-word capitalized → try common name first

What Will You Do Next Week?

Agent Self-Verification Steps (To-do #2)

- Implement validation layer after planning
- Add confidence scores for tool selections
- Parallel API calls with different search parameters (precise + fuzzy)
- Query verification before execution

Comprehensive Test Suite (To-do #3)

- Create 50+ test queries covering all 7 tools
- Document expected results for each query
- Automated unit tests for parameter extraction & resolution

User Interaction Improvements (To-do #4)