VERTEBRATE ATLAS

Vertebrates of the Wet Tropics Rainforests of Australia

Species Distributions and Biodiversity

Stephen E. Williams

Rainforest CRC

Cooperative Research Centre for Tropical Rainforest Ecology and Management

VERTEBRATES OF THE WET TROPICS RAINFORESTS OF AUSTRALIA

SPECIES DISTRIBUTIONS AND BIODIVERSITY

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FOREWORD

One of the most basic elements of ecology and conservation biology is knowing what species occur in what places. As conceptually simple as this may sound, it is an incredibly difficult and complex undertaking, although probably the single most important fact underpinning all of ecology.

It is impossible to make informed decisions about conservation management without some knowledge on the general geographic distributions of species. The aim of this report is to provide readers with my best estimate of the distribution of as many species of rainforest vertebrates as possible at this time within the Wet Tropics bioregion. Understanding biodiversity necessitates understanding the factors that determine the distribution of each constituent species.

Approximately 350 species of vertebrates occur in the rainforests of the Wet Tropics bioregion, however, only about 153 species have their core distributions in the rainforest. In this report, I present distribution maps for the 177 species of Wet Tropics vertebrates where there was sufficient data to produce a useful map (the vast majority of true rainforest species), and twelve species richness maps based on overlaid distribution maps (Appendix B). The distribution maps represent a combination of bioclimatic modeling, habitat preferences, biogeographic distributions and expert knowledge. Also included is a comprehensive species list of all vertebrates in the Wet Tropics bioregion (Appendix A), with information on the conservation status, range size (of the mapped species), habitat specialisation and summaries of species richness by taxa both in spatially continuous maps and in tabulated form.

The CD-ROM enclosed in the back cover (Appendix C) provides a PDF version of this report, which is embedded with hyperlinks to enable easy viewing of any species maps from the Index to Maps and those mapped species listed in Appendix A.

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Emily Bolitho, Sam Fox, Sara Townsend, Joanne Isaac, Ant Backer, Luke Shoo, Yvette Williams, Jeff Middleton, Richard Pearson, Jo Weineke, Earthwatch volunteers, the Australian Research Council, the Rainforest CRC, James Cook University, National Geographic, the National Science Foundation, field volunteers too numerous to name and data contributors (see appendix in Williams *et al*. 1996).

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1. INTRODUCTION

I have been trying to understand the ecology of the rainforests in the Wet Tropics bioregion of north Queensland since 1986 when I started first year biology at James Cook University. I remember, as a child, driving past places like Mount Elliot, looking up into the mysterious, cloud-draped rainforests and wondering what was up there. I have been fortunate enough to not only find out what is up there but to have made a career out of it. I have now been to many mountaintops and steamy lowland forests and the contents of this report describe some aspects of the things I have found.

During the past fifteen years, I have been attempting to understand the patterns and processes of rainforest biodiversity in the Wet Tropics and, more recently, how global climate change is likely to affect these rainforests. The Wet Tropics bioregion lies along the tropical northeastern coast of Queensland, between Cooktown in the north and Townsville in the south (Figure 1). It covers an area of approximately 1.8 million hectares, of which about one million hectares is rainforest. The Wet Tropics World Heritage Area (WTWHA) protects nearly 900,000 hectares of the region, primarily rainforest. The region is characterised by a series of disjunct mountain ranges running roughly parallel to the coast, with most of the mountains being covered in tropical rainforest.

Rainfall within the rainforest areas varies from about 1,500 millimetres up to as much as 9,000 millimetres annually, although this is highly variable from year to year. Rainfall is strongly seasonal with most of the annual rainfall falling between December and February.

When the Rainforest Cooperative Research Centre (CRC) first commenced in 1995, I conducted a review of what was known about the distribution and biodiversity of vertebrates in the region (Williams *et al.* 1996). At that stage, our distributional knowledge was surprisingly limited even for the better-known groups of vertebrates. We analysed the available data at the best resolution possible at the time, which was the presence/absence of species in each mountain range or subregion (Figure 2). These data and analyses were surprisingly informative considering the low resolution of the data, which lead me to include regional analyses of biodiversity in my PhD research and a number of publications on various aspects of ecology in the Wet Tropics (Williams 1997; Williams and Pearson 1997; Williams and Hero 1998, 2001; Graham *et al*. 2006). However, it was always recognised that we needed to move beyond subregional species richness and compile/collate/collect point locality data on species distributions and abundance.

It was always considered important but too costly and time consuming to conduct systematic surveys across the region that would include the most important gradients. The contents of this report are based on systematic, standardised surveys that were funded and conducted under a variety of research projects. Standardising the techniques has meant that the samples from the different studies that I have conducted could be combined to finally have reasonable coverage of the region, albeit more than ten years later. It is now possible to move to continuous spatial analyses rather than simple subregional comparisons.

In this report I present one step in this direction, that is, my best estimate of the distribution of most species of terrestrial rainforest vertebrate in the Wet Tropics, excluding bats. The backbone of this report is the maps of species richness and species distributions. They are not yet complete; many species do not yet have sufficient data to allow a realistic or reliable map and thus the maps presented here vary in their reliability, dependent on the amount and quality of the data input. However, I hope that these maps are useful at many levels. Biodiversity at its simplest level is the number of species in a place and this is what the combination of these maps is trying to estimate – which species are in which places.

The Wet Tropics bioregion presents a unique opportunity to examine ecology and biogeography because the rainforests have been protected under World Heritage listing since 1988 and there is an extensive ecological and biophysical research base. Webb (1987) stated that the Australian Wet Tropics is one of the "most significant regional ecosystems in the world" as a key to understanding the origins of angiosperms, past climatic sifting and to understanding links with temperate Australia, Asia and South America.

Considerable knowledge has become available on regional climate (Nix 1991), vegetation distribution (Tracey and Webb 1975; Goosem *et al*. 1995; Stanton and Stanton 2005), distribution of rainforest fauna (Winter *et al*. 1984; Winter 1988; Nix and Switzer 1991; McDonald 1992; Williams *et al.* 1996), patterns of phylogeography (Joseph *et al*. 1995; Schneider *et al*. 1998; Moritz *et al*. 2000; Hugall *et al*. 2002; Bell *et al.* 2004; Schneider and Williams 2005) and historical paleodistribution of vegetation and climate (Nix 1991; Kershaw 1994; Hilbert *et al*. 2001; Graham *et al.* 2006). Broad distributions and habitat preferences of many rainforest animals of the Wet Tropics have been well documented (Kikkawa 1976, 1982, 1991; Kikkawa and Pearse 1969; Kikkawa and Williams 1971; Kikkawa *et al*. 1981; Schodde and Calaby 1972; Driscoll and Kikkawa 1989; Crome and Nix 1991; Ingram 1991; Williams *et al*. 1996).

The regionally endemic upland species are considered to be relicts of either an older connection with the upland fauna of New Guinea or from an older, cool temperate Australian fauna (Kikkawa *et al*. 1981). In contrast, the lowland rainforest of the Wet Tropics has a higher affinity with the rainforests of Cape York and New Guinea, with dispersal from the north over the paleohistory of the region being an important process (Kikkawa *et al*. 1981). Phylogeographic patterns based on molecular population genetics suggest that vicariant evolution in historical rainforest refugia has been an important influence on the fauna (Schneider and Williams 2005). However, the species are old (at least several million years) and the influence of the more recent Quaternary climate/habitat fluctuations has been via processes of non-random extinction and recolonisation rather than recent allopatric speciation (Schneider and Williams 2005).

Data describing the detailed distributions of individual species within the region has been very patchy. While earlier studies have provided valuable basic information on species distributions, analyses of macro-ecological patterns of species richness and assemblage structure have been hampered by coarse resolution in the datasets with distribution data being limited to the scale of subregions (mountain ranges) (Winter *et al.* 1984; Winter 1988; McDonald 1992; Williams *et al*. 1996; Williams and Pearson 1997; Moritz *et al*. 2000; Williams and Hero 2001). Williams *et al.* (1996) suggested that in order to move beyond analyses based on coarse distribution data, it would be necessary to (a) compile point locality data rather than subregional (mountain range) species lists; (b) collect abundance data rather than presence/absence data; and (c) explicitly examine the elevational gradient in more detail.

The elevational gradient is the primary ecological gradient driving patterns of species richness and composition in the Wet Tropics biogeographic region (Williams and Pearson 1997). Attempts have been made to expand knowledge on the elevational distribution and relative abundance of bird species; however, data has previously been restricted to a small number of species (Crome and Nix 1991; Wieneke 1992) or incompletely sampled mountain ranges within the region (Gill 1970; Kikkawa 1982; Boles and Longmore 1989). The comprehensive dataset used to produce these maps has been and is continuing to be used in a number of recent studies.

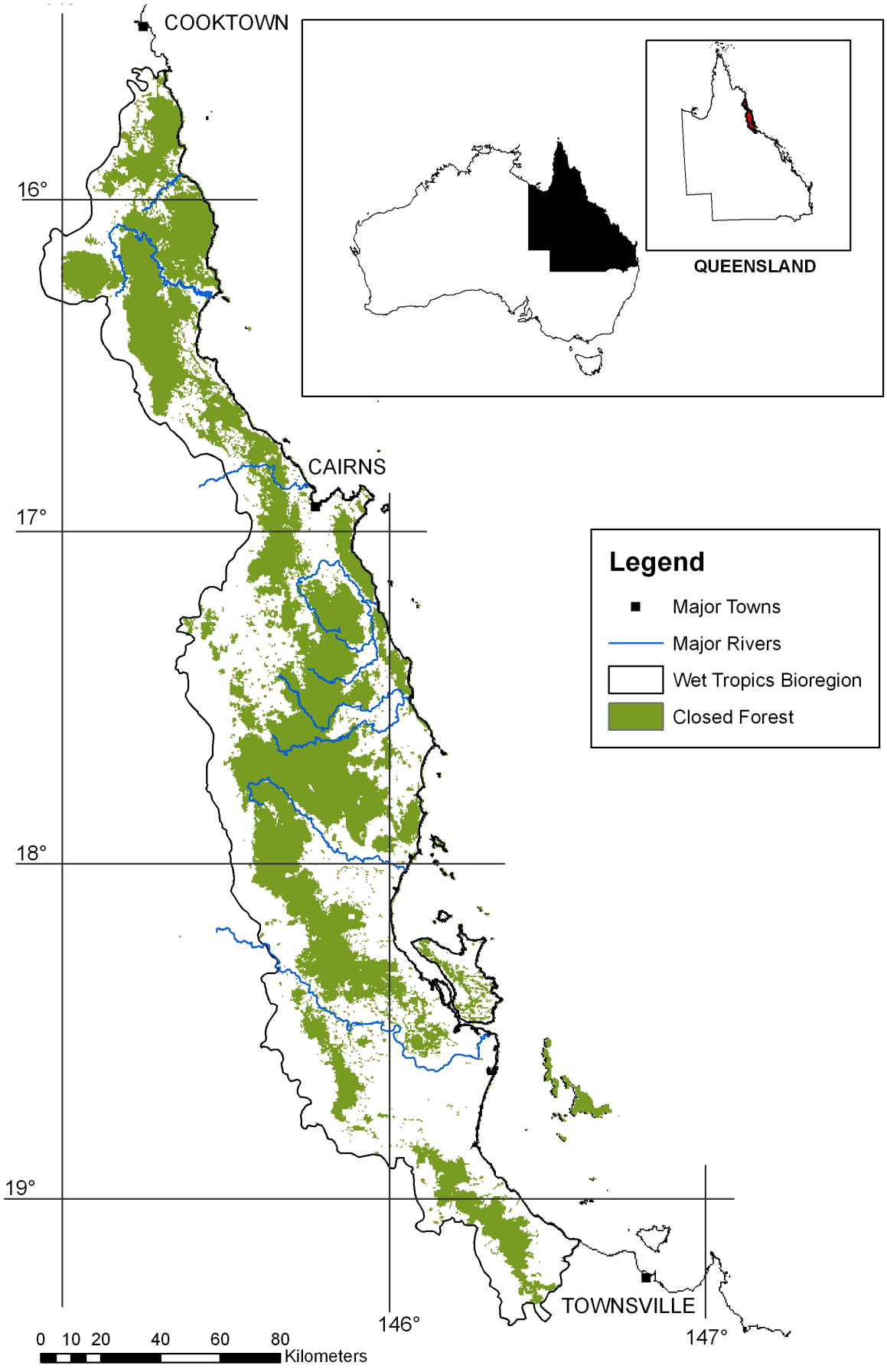


Figure 1: The distribution of rainforests within the Wet Tropics bioregion.

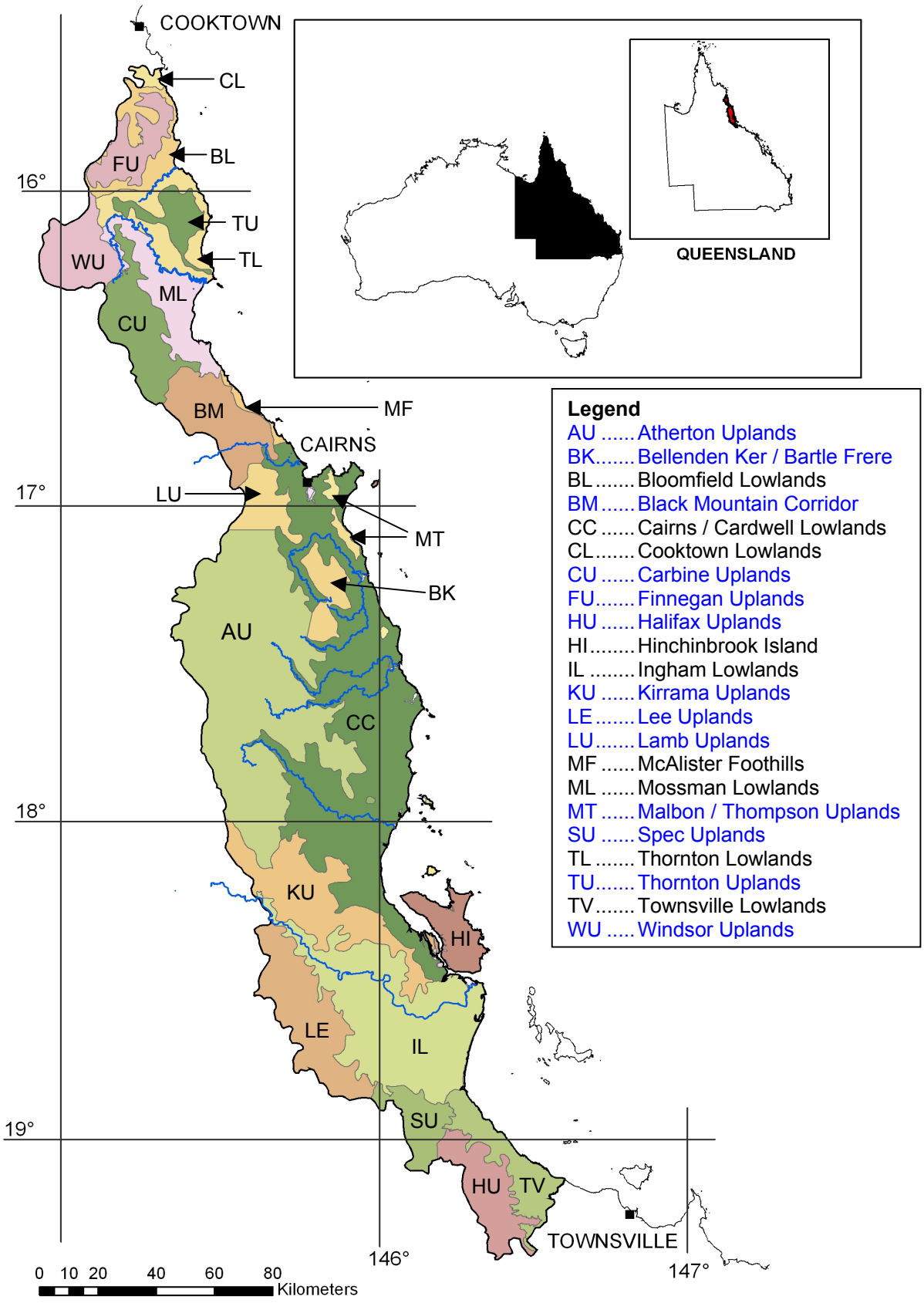


Figure 2: Subregions of the Wet Tropics bioregion. Upland subregions more than three hundred metres above sea level are indicated in blue in the legend.

Regionally endemic birds are known to exhibit complex variability in abundance within current elevation ranges (Shoo *et al*. 2005a) and the same has also been demonstrated for other vertebrate taxa in the region, including arboreal mammals (Trenerry and Werren 1993; Kanowski *et al*. 2001) and microhylid frogs (Shoo and Williams 2004). Species richness was previously considered to be highest in the lowlands (Kikkawa 1991), declining toward the uplands where a very different assemblage of species is apparent (Kikkawa 1982; Boles and Longmore 1989; Crome and Nix 1991). However, analyses based on subregional species richness suggested that species richness of rainforest birds in the upland and lowland forests were not significantly different and species richness and endemism were positively correlated with rainforest area and habitat diversity (Williams *et al*. 1996).

With the recent availability of systematic standardised surveys of vertebrates across the region, detailed altitudinal patterns of species richness are now available (Williams *et al*. in press) (Figure 3). Historical contraction of rainforest to small refugia, followed by non-random species extinctions, may explain the general paucity of specialised species and low endemism in the lowlands (Williams and Pearson 1997). Molecular data provides additional support for the hypothesis that there were local extinctions during periods of rainforest contraction and subsequent expansion (Joseph *et al*. 1995; Schneider and Williams 2005).

Protecting the biota and ecosystem functions of the Wet Tropics bioregion is only possible if we have some understanding of current patterns of biodiversity and the factors that maintain ecosystem processes and determine the distributions of species, assemblages and habitats. Therefore, it is imperative that we gain an understanding of the factors determining the distribution of species. The distribution and abundance of a species is determined by a number of complex and often interacting factors within four general categories (Brown and Lomolino 1998):

1. Biogeographic history (e.g. extinction episodes due to habitat contraction);
2. Physiological preferences and tolerances of species and habitats to the abiotic environment (e.g. temperature, rainfall and climatic stability);
3. Biotic interactions (e.g. competition and predation); and
4. Disturbance (e.g. fire and cyclones).

The maps included in this report are a step forward in the ongoing research to improve our knowledge of species distributions in the Wet Tropics region and the processes that determine these distributions. This knowledge is crucial if we are to maintain this unique ecosystem into the future, particularly in the face of global climate change. Until recently, the major threats to the biodiversity values of the Wet Tropics were habitat clearing, fragmentation, pests and diseases. It is now apparent that climate change and the interactions between a changing climate and other pressures are the key challenges we now face in protecting our tropical rainforests.

The bioclimatic models that provided significant input into these maps largely influenced my decision to redirect my research efforts. Initially, my research was focused on understanding spatial patterns of biodiversity. I smugly thought that we had one of the best systems in the world for this research because we had a high-biodiversity area that was accessible, well studied and well protected. The realisation that climate change induced by anthropogenic greenhouse gas emissions could cause catastrophic impacts on the Wet Tropics was a shock. Since the early analyses predicting these impacts, the impacts of climate change on biodiversity in the Wet Tropics has been the primary focus of my research.

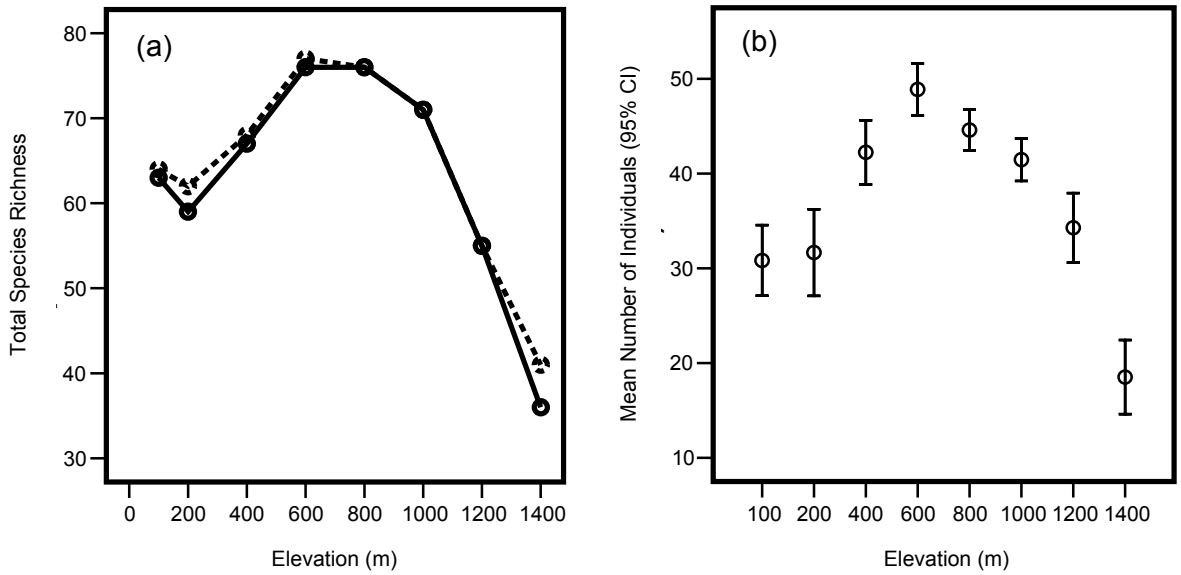


Figure 3: Changes across the elevational gradient in bird species richness and abundance, (a) observed (S_{obs} – solid line) and estimated total species richness (Michaelis-Menton Means, S_{mmm} – dashed line); and (b) bird density (mean number of individuals recorded in a survey) (after Williams *et al*. in review).

1.1 GLOBAL CLIMATE CHANGE IN THE WET TROPICS

There is no doubt that the global climate is changing due to anthropogenic greenhouse gas emissions. Average temperatures have already risen approximately 0.6°C and are continuing to increase (Houghton *et al*. 2001). The Australian Bureau of Meteorology has announced that 2005 was the hottest year on record. Regional climate modeling in Australia suggests that during the remainder of this century we will experience an increase in average temperatures of 1.4 to 5.8°C, combined with increases in atmospheric CO_2 concentrations.

Changes in rainfall patterns are also predicted with rainfall becoming more variable, longer dry spells and increased frequency of disturbance events such as flooding rains and cyclones (Easterling *et al.* 2000; Walsh and Ryan 2000; Milly *et al.* 2002; Palmer and Raianen 2002). Additionally, a rise in the average basal altitude of the orographic cloud layer is expected (Pounds *et al.* 1999), which will likely exacerbate the effects of longer and more variable dry seasons due to a reduction in cloud capture by the canopy in mountain rainforests (Still *et al.* 1999).

It is now widely accepted that climate change is probably the most significant threat to global biodiversity and human well-being (Hughes 2000; Parmesan and Yohe 2003; Root *et al*. 2003; Thomas *et al.* 2004a,b; Root *et al*. 2005; Pounds *et al.* 2006). There is a common, though incorrect, perception that the impacts of climate change will be worse in temperate regions than in the tropics although it is generally accepted that all mountain biota are extremely vulnerable. Global biodiversity is concentrated in the tropics, where there are also often high levels of vulnerable species and restricted endemics. Mountain systems represent hotspots of biodiversity and endemism due to the compression of climatic zones over the elevational gradient (Körner 2002). It is this dependence on elevational gradients that makes these systems vulnerable to climate change.

Many studies have demonstrated, or predicted, that climate change will result in shifts in the latitudinal and altitudinal range of affected species, with concomitant complex changes in assemblage structure and ecosystem function (Parmesan 1996; Hill *et al.* 2002; Peterson *et*

al. 2002; Parmesan and Yohe 2003; Root *et al.* 2003). However, the rainforests of the Wet Tropics, Cape York and Eungella are each isolated habitats with no potential for rainforest endemics to move beyond their current bioregion. Furthermore, the biogeography of the region predisposes the fauna to being vulnerable to climate change for two reasons:

1. Endemic fauna are adapted to cool, wet and relatively aseasonal environments; and
2. The impacts of increasing temperatures should be most noticeable across altitudinal gradients and, in this region, the altitudinal gradient and the associated complex topography dominate the biogeography of the region (Nix and Switzer 1991; Williams *et al.* 1996).

Predictive modeling of impacts on species distributions and population size suggested the potential for catastrophic extinctions in the Wet Tropics (Williams *et al.* 2003; Shoo *et al*. 2005a,b; Williams and Hilbert 2006). Bioclimatic models of the spatial distribution for endemic rainforests vertebrates predict that many species will lose the majority of their core habitat under relatively small increases in temperature, resulting in an amplification of extinction rates and a significant reduction in overall biodiversity in the region (Williams *et al.* 2003).

In a recent study using population size and density rather than distributions (based on standardised abundance surveys) of Wet Tropics birds, Shoo *et al*. (2005a) predict that 74% of rainforest species will become threatened as a result of projected mid-range warming in the next one hundred years. However, extinction risk in rainforest birds varied according to where a species is currently most abundant along the altitudinal gradient. Upland birds are expected to be most affected and are likely to be immediately threatened by small increases in temperature. However, there is a capacity for the population size of lowland species to increase, at least in the short term. Many microhylid frog species are also predicted to suffer large declines in population size as climates that currently support high density populations of species on mountaintops are likely to disappear under moderate levels of climate warming (Williams *et al.* in review). It has also been predicted that for regionally endemic birds and frogs, as temperature increases, population size is likely to decline more rapidly than distribution area. This indicates that for these species, extinction risk associated with climate change will be more severe than expected from decline in distribution area alone (Shoo *et al.* 2005; Shoo 2005).

Finally, Williams *et al.* (in revision) found that species richness and density of Wet Tropics rainforest birds is highest at elevations of six to eight hundred metres (Figure 3) and is positively related to net primary productivity and energy input. The authors suggest that an increase in temperature due to global warming may result in an increase in net primary productivity that could ameliorate some of the predicted negative effects of climate change on upland rainforest birds (Williams *et al*. in revision).

It is not only the vertebrates that are expected to suffer from climate change. Studies on invertebrate fauna have found many species restricted to high altitudes, including low vagility arthropods (Monteith 1985,1995; Monteith and Davies 1991), schizophoran flies (Wilson *et al.* in review) and ants (Yek unpublished data). These results suggest that the impacts in the invertebrate assemblages will be similar to those previously predicted for regionally endemic vertebrates by Williams *et al.* (2003).

Ultimately, the impacts of global climate change will depend on two factors; firstly, the final, realised degree of change, and secondly, the resilience of the species and ecosystem in question. The relative resilience of a species will depend on its ability to adapt via ecological or evolutionary plasticity within biogeographic constraints such as habitat connectivity. The imperative now is to understand the patterns and processes of the rainforest ecosystem in

order to allow effective conservation management. Knowing which species occur in any given area is a basic, but vitally important, piece of information for almost all aspects of ecology, conservation, natural resource management, impact assessment and general natural history. I hope these maps and summaries will be useful in all of these areas of interest.

2. METHODS

2.1. DISTRIBUTION DATA

Distributional data on all terrestrial vertebrates were collected during intensive field surveys across the region and by collating all available sources from literature and institutional databases. Realistic distribution models require good coverage of the range of environments present within the distribution of each species, and thus the regional coverage of both geographic and environmental space was analysed and additional standardised surveys were carried out to fill gaps in both geographic and environmental space as much as possible.

Total survey effort across the bioregion included over 1,200 bird surveys, 600 reptile surveys, 300 spotlighting transects, approximately 50,000 trap nights for small mammals, 150 stream-frog surveys, 300 microhylid frog surveys and approximately 7,000 miscellaneous records collected during field work. Other major sources of data included the Birds Australia *Atlas of Australian Birds* and the *QPWS WildNet* fauna database of the Queensland Parks and Wildlife Service. Individual biologists who have worked in the Wet Tropics provided important additional records (see special reference section in Williams *et al*. 1996). The resulting database contains about 100,000 spatially referenced records of over 600 terrestrial vertebrate species. Each record was checked for both positional and taxonomic reliability and only records of high reliability were retained in the analyses.

2.2. DISTRIBUTION MAPS

The maps presented in this report are my best estimate of the distribution of each species given available data. The production of each distribution map involved a three-step process:

a) A bioclimatic model of the spatial distribution of the species was produced;
b) The resulting climatic map was clipped using the habitat preferences of each species; and
c) Maps were then clipped by known biogeographic limits of the species distribution.

The aim was to produce a distribution map that was as accurate as possible within the limits of my knowledge of each species. The process is ongoing and all new data improves the accuracy of the maps. Each of these three steps is outlined in more detail below.

2.2.1. Bioclimatic Models of Species Distribution

The modeling program we used was BIOCLIM, a part of the ANUCLIM 5.1 package (Houlder *et al.* 2000). The digital elevation model used for the region had a pixel resolution of 80m x 80m. BIOCLIM generates up to thirty-five climatic parameters based on maximum temperature, minimum temperature, rainfall, radiation and evaporation. However, unrestricted use of so many variables in a climatic envelope method results in over-parameterisation and loss of predictive power of the models, therefore we restricted the environmental variables to ten parameters that had previously demonstrated significance in explaining biological patterns of diversity within the region:

1. The mean annual temperature;
2. Intra-annual variability of monthly mean temperature;
3. Maximum temperature of the warmest quarter;
4. Minimum temperature of the coldest quarter;

5. Mean annual precipitation;
6. Intra-annual variability of monthly mean precipitation;
7. Precipitation of the wettest quarter;
8. Precipitation of the driest quarter;
9. Annual mean radiation; and
10. Intra-annual variability of monthly mean radiation.

This set of variables was selected after extensive multiple regression modeling of each vertebrate group, combined with biological knowledge on each group. The aim was to use the minimum number of variables possible that filled several criteria, where:

a) The variable was consistently significant in statistical analyses relating to the spatial patterns of biodiversity and abundance of vertebrates; and
b) The set of variables represented minimums, maximums and means of both temperature and rainfall.

Restricting the analysis to these relatively simple climatic variables makes the biological significance of the variables easier to interpret. Core environmental distribution was defined as the areas where the climatic parameters fall within the fifth and ninety-fifth percentiles of the values of the parameters in the species profile.

Bioclimatic envelope methods such as BIOCLIM generally overestimate distribution area since, by definition, they do not take habitat preferences, biotic exclusion (e.g. due to competition) or biogeographic barriers into account. Each distribution map from the bioclimatic modeling was therefore clipped by habitat preferences and known biogeographic limits. In any cases where there was uncertainty in habitat preference or the species biogeographic distribution was poorly known, the models were not clipped to make them as conservative as possible.

2.2.2. Biogeographic Limits

Current distribution models were evaluated by comparison with known patterns of subregional occurrence (Williams *et al.* 1996) and a huge investment in fieldwork over the last ten years has gone into checking these biogeographical distributions. Based on these data, the subregional distribution patterns of most species are well known. When the bioclimatic model predicted suitable environment in a subregion where I was highly confident that the species was not present due to a biogeographic barrier (e.g. Herbert River gorge), the predicted area was removed from the map. If there was any doubt that the species might occur there, the predicted distribution was not edited. Just as some species have been overestimated, I am sure that some species with few records will have been underestimated.

2.2.3. Habitat Preference

Often, the correct climatic combination may be present but in areas of unsuitable habitat. In order to take this into account as best as possible, I allocated each species a ranking from 0 (zero) to six (6) to describe their relative degree of rainforest specialisation, with a 6 being a rainforest obligate and 0 (zero) being a species that does not occur in rainforest (see Appendix A). The rankings are basically my opinion; however, they are based on quantitative measures of abundance based on over two thousand surveys across the region and across rainforest habitat boundaries. For many species, detailed quantitative data is available but the ranking used was considered to be the highest resolution that could consistently be applied across all species presented here.

2.2.4. Prediction of Climate Change Impacts

I chose a range of temperature increase scenarios to encompass the predicted range (1.4 to 5.8°C in Houghton *et al.* 2001) including temperature increases of + 1°C, + 3.5°C, + 5°C and + 7°C. These increases were applied to each of the three temperature variables uniformly across the region. We used the bioclimatic models based on current species distribution to predict distributional changes with increasing temperature and subsequent changes to regional patterns of biodiversity. The area of core environment remaining at the different temperature scenarios formed the basis of analyses. Overlaying species distribution models within each climate change scenario produced species richness maps. These climate change impact predictions have been previously published in Williams *et al.* (2003) and Thomas *et al*. (2004a; 2004b).

2.2.5. Species Richness Maps

Continuous maps of species richness were produced by overlaying the distribution maps of each species in ARC-GIS and counting the number of species within a given taxonomic group whose core distribution was predicted to occur in each grid cell (80 m x 80 m pixels). Since only species with enough data to enable a reasonable predictive map of distribution can be included in the analysis, and since I chose only to include the bioclimatic core distribution area, these maps represent spatial maps of relative species richness, not absolute total species richness. The absolute numbers will not be completely correct, with total species richness being greater than the mapped numbers. However, the relative pattern of species richness is realistic and has been confirmed by many other analyses of empirical field data using my standardised survey data. The spatial patterns of diversity hotspots, etc. should be realistic and useful for broad regional scale conservation planning.

3. RESULTS, DISCUSSION AND MAPS

3.1. SPECIES DISTRIBUTION MAPS

The main value in this report is the species distribution maps presented in Appendix B. These maps are my best estimation of the distribution of these species at the time of going to print. They are constantly being updated as new records are obtained. Any records with accurate spatial details and taxonomic identification can improve the maps, so feedback from anyone who has additional records is always welcome.

The maps are an amalgamation of a bioclimatic species distribution model that is then corrected by the combination of my knowledge of habitat preferences and the best-known biogeographic limits (e.g. I am highly confident that the Prickly Forest Skink, *Gnypetoscincus queenslandiae*, does not occur in the Mount Spec range even though there is suitable habitat and climate in that subregion). The maps are a mixture of an objective, quantitative model and expert knowledge. Obviously, there is still plenty of room for improvement through the discovery of extensions in distributions, especially in cryptic fauna like many reptiles, and through new knowledge on their degree of habitat specificity. Again, feedback on these aspects is welcome and will continue to improve our knowledge.

Another variable that affects the interpretation of the maps is the quantity of data for a particular species and the spatial spread of the records. Species with few records or many records that are clumped produce models that have poor resolution of the differences between the core, marginal and total range of a species. In these cases, the estimate of total range may be reasonable but the definition of the core area can be poor.

In general, the maps for the rainforest species (RF>3, see Key to Abbreviations and Codes Used in Table 4, Appendix A) are much better than forest generalist species because most of the latter have distributions outside the region and the model is much less accurate. Distributions in the uplands are better than the lowland predictions because there have been more field surveys conducted in the uplands. I am currently conducting standardised surveys across the available elevational gradient and this work will continue to improve the accuracy of the lowland mapping. However, I feel that the distributions of many species are underestimated in the lowlands and, as a result, species richness in the lowlands are also likely to have been underestimated. The overall relative pattern is realistic but the difference between upland and lowland is not quite as dramatic as the species richness maps suggest. Detailed, accurate elevational analyses are currently underway (e.g. bird diversity and abundance across altitude, Williams *et al.* in review).

There are minor errors associated with the spatial mapping of vegetation that is used to clip the bioclimatic models and a further source of variance in the estimates of habitat specificity of each species. When there was some uncertainty about the habitat preferences of a species or its biogeographic limits, the bioclimatic maps were not adjusted by habitat. Another problem is the scale of the maps, very small patches of rainforest are impossible to see at this scale and many species may still exist in tiny refugial patches or narrow riparian strips within these largely cleared areas, such as the Atherton Tablelands. However, any patches this small are not likely to be major populations when considering the overall distribution and conservation status of a species in the region. Some species, such as the cassowary, are capable of crossing non-rainforest habitats, so records will sometimes occur outside the shown distribution of rainforest habitat, even though that species' distribution has been clipped by the extent of closed forest. Although there are many sources of error, I believe that these maps are as accurate as possible given current knowledge and therefore provide the best representation to date of the fine-scale distribution of these species. I have

provided a subjective guide, based on my knowledge, to the reliability of each map as follows:

✳	A useful guide, however delineation of core, marginal and range estimates is unreliable.
✳✳	A reasonable map, with some delineation of core, marginal and range limits.
✳✳✳	A good map, with lots of records, that is probably reliable in most aspects.

I have included species richness maps for each separate taxa, regional endemics, species that are listed on the *Nature Conservation Act 2001* and combined totals (Appendix B). These biodiversity maps should be treated as a spatial pattern rather than absolute numbers of species as they are compilations of the species maps, and since not all species could be mapped the numbers of species are not entirely accurate. However, I believe the patterns to be relatively robust and realistic. They are very useful in visualising the spatial distribution of biodiversity in the region and the hotspots of endemism, species richness and rare species. I hope they provide a useful management tool.

3.2. SPECIES RICHNESS

Tables 1 to 3 are simply descriptive statistics of the rainforest vertebrate fauna and are an updated version of the figures presented in Williams *et al*. (1996). The spatial patterns of species richness are shown in Maps 1-12 in Appendix B.

Table 1: Summary of terrestrial vertebrate species richness in the Wet Tropics by taxonomic class. Figures shown in parentheses indicate the percentage of the total number of species in Australia. Levels of endemism are expressed as the number of species endemic to the Wet Tropics biogeographic region, and regional endemism is the proportion of species that are restricted to the Wet Tropics. Edge species are those that primarily occur in adjacent regions and which only occur on the edge of the Wet Tropics.

Taxa	Number of Species (Percentage of Australian Total)	Number of Introduced Species	Number of Edge Species	Number of Families	Number of Endemic Species (Percentage of Regionally Endemic Species)
Mammals	117 (48%)	10	9	23	14 (12%)
Birds	338 (46%)	4	16	66	12 (4%)
Reptiles	161 (26%)	1	35	12	30 (19%)
Frogs	60 (30%)	1	5	5	27 (45%)
Total	676	16	65	106	83 (12%)

Table 2: Summary of the number of species by conservation status. Very Important Species (VIS) are those species or subspecies that are either endemic to the Wet Tropics and/or have a rare and threatened status (see Appendix A). Restricted endemics are Wet Tropics endemics that have very small distributions within the Wet Tropics, usually confined to a single subregion. Numbers of rare and threatened species follow the *Nature Conservation Act 2001* (E = Endangered; V = Vulnerable; R = Rare). Figures shown in parentheses in the VIS column represent the percentage of all species in each group within the region.

Taxa	VIS	Endemics	Restricted Endemics	E	V	R
Mammals	45 (39%)	14	1	3	14	7
Birds	46 (14%)	12	-	3	11	7
Reptiles	43 (27%)	30	9	-	20	3
Frogs	28 (46%)	27	8	7	13	1
Total	163	83	18	13	58	18

Table 3: Number of species that utilise rainforest to varying degrees in the Wet Tropics (refer Appendix A for species-specific specialisation rankings). Key: 0 = does not occur in rainforest; 1 = occasionally recorded in rainforest; 2 = use rainforest as sub-optimal/marginal habitat; 3 = commonly recorded in rainforest but not the species' core habitat; 4 = rainforest is a main habitat however also common in other forest environments; 5 = rainforest is core habitat however also occur in wet sclerophyll forests; 6 = rainforest obligate.

	Degree of Rainforest Specialisation						
Taxa	**0**	**1**	**2**	**3**	**4**	**5**	**6**
Mammals	47	13	9	14	4	7	13
Birds	185	34	23	28	22	37	9
Reptiles	69	8	13	37	11	11	12
Frogs	18	5	5	5	2	13	12
Total	317	60	50	84	39	68	46

4. REFERENCES

Barker, J., Grigg, G. C. and Tyler, M. J. (1995). *A Field Guide to Australian Frogs*. Surrey Beatty and Sons, Chipping Norton, NSW, Australia.

Bell, K. L., Yeates, D. K., Moritz, C. and Monteith, G. B. (2004). Molecular phylogeny and biogeography of the dung beetle genus *Temnoplectron* Westwood (Scarabaeidae: Scarabaeinae) from Australia's wet tropics. *Molecular Phylogenetics and Evolution* 31: 741-753.

Boles, W. E. and Longmore, N. W. (1989). Altitudinal distribution of the birds of Thornton Peak, Queensland. *Sunbird* 19: 1-15.

Brown, J. H. and Lomolino, M. V. (1998). *Biogeography*. Second Edition. Sinaeur Associates, Sunderland, MA, United States of America.

Crome, F. and Nix, H. (1991). Birds. In *Rainforest animals: atlas of vertebrates endemic to Australia's wet tropics* (eds. H. A. Nix and M. A. Switzer). Australian National Parks and Wildlife Service, Canberra, Australia.

Driscoll, P. V. and Kikkawa, J. (1989). Bird species diversity of lowland tropical rainforests of New Guinea and northern Australia. In *Vertebrates in complex tropical systems* (eds. M. L. Harmelin-Vivien and F. Bourlière) Springer-Verlag, New York, United States of America.

Easterling, D. R., Meehl, G. A., Parmesan, C., Changnon, S. A., Karl, T. R. and Mearn, L. O. (2000). Climate extremes: observations, modeling and impacts. *Science* 289, 2068-2074.

Goosem, S., Morgan, G. and Kemp, J. E. (1999). Wet Tropics. In *The Conservation Status of Queensland's Bioregional Ecosystems* (eds. P. S. Sattler and R. D. Williams) Environmental Protection Agency, Brisbane.

Graham, C. H., Moritz, C. and Williams, S. E. (2006). Habitat history improves prediction of biodiversity in rainforest fauna. *Proceedings of the National Academy of Sciences of the United States of America* 103, 632-636.

Hill, J. K., Thomas, C. D., Fox, R., Telfer, M. G., Willis, S. G, Asher, J. and Huntley, B. (2002). Responses of butterflies to twentieth century climate warming: implications for future ranges. *Proceedings of the Royal Society of London* B 296: 2163-2171.

Hilbert, D. W., Ostendorf, B. and Hopkins, M. S. (2001). Sensitivity of tropical forests to climate change in the humid tropics of north Queensland. *Austral Ecology* 26, 590-603.

Houghton, J. (2001). The science of global warming. *Interdisciplinary Science Reviews* 26, 247-257.

Houghton, J. T., Ding, Y., Griggs, D. J., Noguer, M., van der Linden, P. J., Dai, X., Maskell, K. and Johnson, C. A. (eds) (2001). *IPCC Third Assessment Report: Climate Change 2001*. Cambridge University Press.

Houlder, D. J., Hutchinson, M. F., Nix, H. A. and McMahon, J. P. (2000). ANUCLIM 5.0. Centre for Resource and Environmental Studies, Australian National University, Canberra.

Hughes, L. (2000). Biological consequences of global warming: is the signal already apparent? *Trends in Ecology and Evolution* 15, 56-61.

Hugall, Al, Moritz, C., Moussali, A. and Stanisic, J. (2002). Reconciling paleodistribution models and comparative phylogeography in the Wet Tropics rainforest snail *Gnarosophia bellendenkerensis* (Brazier 1875). *Proceedings of the National Academy of Sciences of the USA* 99: 6112-6117.

Ingram, G. J. (1991). The status of birds. In *An atlas of Queensland's frogs, reptiles, birds and mammals* (eds. G. J. Ingram and R. J. Raven), Queensland Museum, Brisbane.

Joseph, L., Moritz, C. and Hugall, A. (1995). Molecular support for vicariance as a source of diversity in rainforest. *Proceedings of the Royal Society of London B* 260, 177-182.

Kanowski, J., Hopkins, M. S., Marsh, H. and Winter, J. W. (2001). Ecological correlates of folivore abundance in north Queensland rainforests. *Wildlife Research* 28, 1-8.

Kershaw, A. P. (1994). Pleistocene vegetation of the humid tropics of northeastern Queensland, Australia. *Palaeo* 109, 399-412.

Kikkawa, J. (1976). The birds of Cape York Peninsula. *Sunbird* 7, 81-95.

Kikkawa, J. (1982). Ecological associations of birds and vegetation structure in wet tropical forests of Australia. *Australian Journal of Ecology* 7, 325-345.

Kikkawa, J. (1991). Avifauna of Australian rainforests. In *The Rainforest Legacy* (eds. G. Werren and P. Kershaw). Australian Government Publishing Service, Canberra, Australia.

Kikkawa, J. and Pearse, K. (1969). Geographical distribution of land birds in Australia – a numerical analysis. *Australian Journal of Zoology* 17, 821-840.

Kikkawa, J. and Williams, W. T. (1971). Altitudinal distribution of land birds in New Guinea. *Search* 2, 64-65.

Kikkawa, J., Monteith, G. B. and Ingram, G. (1981). Cape York Peninsula: Major region of faunal interchange. In *Ecological Biogeography of Australia* (ed. A. Keast). D. W. Junk, The Hague, Netherlands.

Körner, C. (2002). Mountain biodiversity, its causes and function: an overview. In *Mountain biodiversity: a global assessment* (eds. C. H. Körner and E. M. Spehn). Parthenon Publishing, New York, United States of America.

McDonald, K. R. (1992). *Distribution patterns and conservation status of north Queensland rainforest frogs.* Conservation Technical Report No. 1, Queensland Department of Environment and Heritage (now Queensland Environmental Protection Agency), Brisbane, Australia.

Menkhorst, P. and Knight, F. (2001). *A Field Guide to the Mammals of Australia*. Oxford University Press, Melbourne, Australia.

Milly, P. C. D., Wetherald, R. T., Dunne, K. A. and Delworth, D. L. (2002). Increasing risk of great floods in a changing climate. *Nature* 415, 514-517.

Monteith, G. B. (1985). Altitudinal transect studies at Cape Tribulation, north Queensland VII. Coleoptera and Hemiptera (Insecta). *Queensland Naturalist* 26: 70-78.

Monteith, G. B. (1995). *Distribution and altitudinal zonation of low vagility insects of the Queensland wet tropics* (Part 4) p. 120. Queensland Museum, Brisbane.

Monteith, G. B. and Davies, V. T. (1991). Preliminary account of a survey of arthropods (insects and spiders) along an altitudinal transect in tropical Queensland. In *The Rainforest Legacy* (eds. G. Werren and P. Kershaw), Volume 2, pp.345-362. Australian Government Publishing Service, Canberra.

Moritz, C., Patton, J. L., Schneider, C. J. and Smith T. B. (2000). Diversification of rainforest faunas: an integrated molecular approach. *Annual Review of Ecology and Systematics* 31, 533-563.

Nix, H. A. (1991). Biogeography: pattern and process. In *Rainforest animals: atlas of vertebrates endemic to Australia's wet tropics* (eds. H. A. Nix and M. A. Switzer), Australian National Parks and Wildlife Service, Canberra, Australia.

Nix, H. A. and Switzer, M. A. (1991). *Rainforest animals: atlas of vertebrates endemic to Australia's wet tropics*. Australian National Parks and Wildlife Service, Canberra, Australia.

Palmer, T. N. and Ralsanen, J. (2002). Quantifying the risk of extreme seasonal precipitation events in a changing climate. *Nature* 415, 512-514.

Parmesan, C. and Yohe, G. (2003). A globally coherent fingerprint of climate change impacts across natural systems. *Nature* 421, 37-42.

Parmesan, C. (1996). Climate and species' range. *Nature* 382: 765-766.

Peterson, A. T., Ortega-Huerta, M. A., Bartley, J., Sanchez-Cordero, V., Sorberon, J., Buddermeler, R. H. and Stockwell, D. R. B. (2002). Future projections for Mexican faunas under global climate change scenarious. *Nature* 416: 626-629.

Pizzey, G. and Knight, F. (1999). Field guide to the birds of Australia. Harper Collins, Sydney, Australia.

Pounds, J. A., Fogden, M. P. L. and Campbell, J. H. (1999). Biological response to climate change on a tropical mountain. *Nature* 398, 611-615.

Pounds, J. A., Bustamante, M. R., Coloma, L. A., Consuegra, J. A., Fogden, M. P. L., Foster, P. N., La Marca, E., Masters, K. L., Merino-Viteri, A., Puschendorf, R., Ron, S. R., Sanchez-Azofeifa, G. A., Still, C. J. and Young, B. E. (2006). Widespread amphibian extinctions from epidemic disease driven by global warming. *Nature* 439, 161-167.

Root, T. L., Price, J. T., Hall, K. R., Schneider, S. H., Rosenzweig, C. and Pounds, J. A. (2003). Fingerprints of global warming on wild animals and plants. *Nature* 421, 57-60.

Root, T. L., MacMynowski, D. P., Mastrandrea, M. D. and Schneider, S. H. (2005). Human-modified temperatures induce species changes: joint attribution. *Proceedings of the National Academy of Sciences of the United States of America* 102, 7465-7469.

Schneider, C. J., Cunningham, M. and Moritz, C. (1998). Comparative phylogeography and the history of endemic vertebrates in the Wet Tropics rainforests of Australia. *Molecular Ecology* 7, 487-498.

Schneider, C. and Williams, S. E. (2005). Quaternary climate change and rainforest diversity: insights from spatial analyses of species and genes in Australia's wet tropics. In *Tropical Rainforests: Past, Present and Future* (eds. C. Moritz, E. Bermingham and C. Dick), Chicago University Press, Chicago, United States of America.

Schodde, R. and Calaby, J. H. (1972). The biogeography of the Australo-Papua bird and mammal faunas in relation to Torres Strait. In *Bridge and barrier: the natural and cultural history of Torres Strait* (ed. D. Walker), Australian National University, Canberra, Australia.

Shoo, L. P. (2005). *Predicting and detecting the impacts of climate change on montane fauna in Australian tropical rainforests.* PhD Thesis, James Cook University, Australia.

Shoo, L. P., Williams, S. E. and Hero, J-M. (2005a). Potential decoupling of trends in distribution area and population size of species with climate change. *Global Change Biology* 11, 1469-1476.

Shoo, L. P., Williams, S .E. and Hero, J-M. (2005b). Climate warming and the rainforest birds of the Australian wet tropics: using abundance data as a sensitive predictor of change in total population size. *Biological Conservation* 125, 335-343.

Shoo, L. P. and Williams, Y. (2004). Altitudinal distribution and abundance of microhylid frogs (*Cophixalus* and *Austrochaperina*) of north-eatern Australia: baseline data for detecting biological response to future climate change. *Australian Journal of Zoology* 52, 667-676.

Stanton, J. P. and Stanton, D. J. (2005). The Vegetation of the Wet Tropics of Queensland Bioregion (version 1.1). Wet Tropics Management Authority, Cairns.

Still, C. J., Foster, P. N. and Schneider, S. H. (1999). Simulating the effects of climate change on tropical montane cloud forests. *Nature* 398, 608-610.

Thomas, C. D., Cameron, A., Green, R. E., Bakkenes, M., Beaumont, L. J., Collingham, Y. C., Erasmus, B. F. N., de Siqueira, M. F., Grainger, A., Hannah, L., Hughes, L., Huntley, B., van Jaarsveld, A. S., Midgley, G. F., Miles, L., Ortega-Huerta, M. A., Peterson, A. T., Phillips, O. L. and Williams, S. E. (2004a). Extinction risk from climate change. *Nature* 427, 145-148.

Thomas, C. D., Williams, S. E., Cameron, A., Green, R. E., Bakkenes, M., Beaumont, L. J., Collingham, Y. C., Erasmus, N., Ferriera de Siqueira, M., Grainger, A., Hannah, L., Hughes, L., Huntley, B., van Jaarsveld, A. S., Midgley, G. F., Miles, L., Ortega-Huerta, M. A., Peterson, A. T. and Phillips, O. L. (2004b). Biodiversity conservation: Uncertainty in predictions of extinction risk / Effects of changes in climate and land use / Climate change and extinction risk (reply). *Nature* 430 doi: 0.1038 Nature 2719.

Trenerry, M. and Werren, G. (1993). Possum assemblages in rainforest of the Carbine Tableland, NEQ, with special reference to *Hemibelideus lemuroids*. *Memoirs of the Queensland Museum* 34, 188.

Tracey, J. G. and Webb, L. J. (1975). Vegetation of the humid tropical region of north Queensland. CSIRO, Indooroopilly, Australia

Walsh, K. J. E. and Ryan, B. F. (2000). Tropical cyclone intensity increase near Australia as a result of climate change. *Journal of Climate* 13, 3029-3036.

Webb, L. J. (1987). Conservation status of the rainforest of north Queensland. In *The Rainforest Legacy* (eds. G. Werren and P. Kershaw), Australian Government Publishing Service, Canberra, Australia.

Wieneke, J. (1992). Altitudinal distribution of the grey-headed robin. *Sunbird* 22, 36-37.

Williams, S. E., Pearson, R. G. and Walsh, P. J. (1996). Distributions and biodiversity of the terrestrial vertebrates of Australia's wet tropics: a review of current knowledge. *Pacific Conservation Biology* 2, 327-362.

Williams S. E. (1997). Patterns of mammalian species richness in the Australian tropical rainforests: are extinctions during historical contractions of the rainforest the primary determinant of current patterns in biodiversity? *Wildlife Research* 24, 513-530.

Williams, S. E. and Pearson, R. G. (1997). Rainforest shape and endemism in Australia's wet tropics. *Proceedings of the Royal Society of London B* 264, 709-716.

Williams S. E. and Hero, J-M. (1998). Rainforest frogs of the Australian wet tropics: guild classification and the ecological similarity of declining species. *Proceedings of the Royal Society of London B* 265, 1-6.

Williams S. E. and Hero, J-M. (2001). Multiple determinants of Australian tropical frog biodiversity. *Biological Conservation* 98, 1-10.

Williams, S. E., Bolitho, E. E. and Fox, S. (2003). Climate change in Australian tropical rainforests: an impending environmental catastrophe. *Proceedings of the Royal Society of London Series B – Biological Sciences* 270, 1887-1892.

Williams, S. E. and Hilbert, D. (2006). Climate change threats to the biodiversity of tropical rainforests in Australia. In *Emerging threats to tropical forests* (eds. W. F. Laurance and C. Peres), Chicago University Press, Chicago, United States of America.

Williams, S. E., Isaac, J. L. and Shoo, L. P. (in review). The impact of climate change on the biodiversity and ecosystem functions of the Wet Tropics. In *Living in a dynamic tropical forest landscape* (eds. N. E. Stork and S. M. Turton).

Williams, S. E., Shoo, L. P., Henriod, R. and Pearson, R. G. (in revision). Elevational gradients in assemblage structure and productivity of rainforest birds in the Australian Wet Tropics bioregion: will increasing productivity help alleviate the impact of global climate change?

Wilson, R. (2005). Rainforest flies: assemblage structure, altitudinal range and climate change. Honours thesis. Australian National University, Canberra.

Wilson, S. (2005). *A field guide to the reptiles of Queensland*. New Holland Publishers, Sydney, Australia.

Winter, J. W., Bell, F. C., Pahl, L. I. and Atherton, R. G. (1984). *The specific habitats of selected northeastern Australian rainforest mammals.* Report to the World Wildlife Fund, Sydney, Australia.

Winter, J. W. (1988). Ecological specialisation of mammals in Australian tropical and sub-tropical rainforest: refugial or ecological determinism. In *The ecology of Australia's wet tropics* (ed. R. Kitching), Surrey Beatty, Sydney, Australia.

Yek, S. H. Unpublished data on ants.

APPENDIX A

FULL SPECIES LIST OF VERTEBRATES THAT OCCUR IN THE WET TROPICS BIOGEOGRAPHIC REGION (INCLUDING MOUNT ELLIOT, A WET TROPICS OUTLIER)

Full Species List of Vertebrates Occurring in the Wet Tropics Biogeographic Region (including Mount Elliot, a Wet Tropics Outlier)

Taxonomy for groups primarily follows:

1. **Mammals:** Menkhorst and Knight, 2001;
2. **Birds:** Pizzey and Knight, 1999;
3. **Reptiles:** Wilson, 2005; and
4. **Frogs:** Barker, Grigg and Tyler, 1995.

Key to Abbreviations and Codes Used in Table 4

Map ..... A solid square symbol indicates there is a distribution map for that species in Appendix B (see also Appendix C).

End...... A solid square symbol indicates the species is regionally endemic, i.e. restricted to the Wet Tropics biogeographic region.

RF..... The degree of rainforest specialisation ranked on a scale of 0-6:

- 0 = Not found in rainforest;
- 1 = Occassionally recorded in rainforest;
- 2 = Uses rainforest as a suboptimal / marginal habitat;
- 3 = Commonly recorded in rainforest, however rainforest is not the species' core habitat;
- 4 = Rainforest is the species' main habitat however it is common in other forest environments;
- 5 = Rainforest is the species' core habitat but it also occurs in adjacent wet sclerophyll forest; and
- 6 = Rainforest obligate.

Core Dist. Area ..... (Km^2) Estimates are based on the maps in Appendix B (see also Chapter 2: Methods).

Range ..... (Km^2) Estimates are based on the maps in Appendix B (see also Chapter 2:Methods).

Edge Species ..... Species that have been recorded in the Wet Tropics biogeographic region, but only just within the edge of the region. Generally, the Wet Tropics would not make a significant contribution to the preservation of these species.

Intro. ..... A solid square symbol indicates species is introduced.

Conservation rankings are presented for all species at the State, Federal and International levels, including:

NC Act ..... *Nature Conservation Act of Queensland 2001*
See http://www.epa.qld.gov.au/nature_conservation/biodiversity/

E = Endangered
R = Rare
V = Vulnerable

IUCN..... *The World Conservation Union Red List of Threatened Species 2001*
See http://www.redlist/org/info/categories_criteria2001.html
Version 3.1 (2001) See website for full criteria.

EX = Extinct
EW = Extinct in the Wild
CR = Critically Endangered
EN = Endangered
VU = Vulnerable
LR/lc = Lower Risk / Least Concern
LC = Least Concern
LR/nt = Low Risk / Near Threatened
NT = Near Threatened
DD = Data Deficient
NE = Not Evaluated

EPBC Act..... *Environment Protection and Biodiversity Conservation Act 1999*
See http://www.deh.gov.au/epbc/
Full details of Criteria available at:
http://scaletext.law.gov.au/cgi-bin/download.pl?/scale/data/comact/10/6006

EX = Extinct
EW = Extinct in the Wild
CR = Critically Endangered
EN = Endangered
V = Vulnerable
CD = Conservation Dependent

VIS..... Very Important Species are of conservation significance in the Wet Tropics bioregion because they are listed as *threatened* under any of the three regulatory conservation acts or are regionally endemic species or subspecies.

Table 4: Full species list of vertebrates that occur in the Wet Tropics biogeographic region (including Mount Elliot, a Wet Tropics outlier).

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
MONOTREMES													
Ornithorhyncidae	*Ornithorhynchus anatinus*	Platypus	■		3	6991	11480						
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked Echidna			2								
MAMMALS													
Dasyuridae	*Antechinus adustus*	Rusty Antechinus	■	■	6	614	1311						■
Dasyuridae	*Antechinus flavipes*	Yellow-footed Antechinus	■		4	2114	7900						■
Dasyuridae	*Antechinus godmani*	Atherton Antechinus	■	■	6	1013	1511			R	LR/nt		■
Dasyuridae	*Dasyurus hallucatus*	Northern Quoll			1						LR/nt		■
Dasyuridae	*Dasyurus maculatus*	Spotted-tailed Quoll	■		5	5205	8296			E	VU	EN	■
Dasyuridae	*Phascogale tapoatafa*	Brush-tailed Phascogale			0						LR/nt		■
Dasyuridae	*Planigale ingrami*	Long-tailed Planigale			0			■					
Dasyuridae	*Planigale maculata*	Common Planigale			2								
Dasyuridae	*Sminthopsis leucopus*	White-footed Dunnart			6					R	DD		■
Dasyuridae	*Sminthopsis macroura*	Stripe-faced Dunnart			0								
Dasyuridae	*Sminthopsis murina*	Common Dunnart			1								
Dasyuridae	*Sminthopsis virginiae*	Red-cheeked Dunnart			0								■
Peramelidae	*Isoodon macrourus*	Northern Brown Bandicoot			1								
Peramelidae	*Isoodon obesulus*	Southern Brown Bandicoot			1								
Peramelidae	*Perameles nasuta*	Long-nosed Bandicoot	■		5	4692	8967						
Phascolarctidae	*Phascolarctos cinereus*	Koala			0						LR/nt		■
Petauridae	*Dactylopsila trivirgata*	Striped Possum	■		5	8096	11985						
Petauridae	*Petaurus australis*	Yellow-bellied Glider	■		1	256	736			V	LR/nt	V	■

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Petauridae	*Petaurus breviceps*	Sugar Glider			2								
Petauridae	*Petaurus gracilis*	Mahogany Glider	■	■	1	2091	3706			E	EN	EN	■
Petauridae	*Petaurus norfolcensis*	Squirrel Glider			0			■			LR/nt		■
Pseudocheiridae	*Hemibelideus lemuroides*	Lemuroid Ringtail Possum	■	■	6	827	1762			R	LR/nt		■
Pseudocheiridae	*Petauroides volans*	Greater Glider			1								■
Pseudocheiridae	*Pseudocheirus peregrinus*	Common Ringtail Possum			2								
Pseudocheiridae	*Pseudochirops archeri*	Green Ringtail Possum	■	■	6	1799	6146			R	LR/nt		■
Pseudocheiridae	*Pseudochirulus cinereus*	Daintree River Ringtail Possum	■	■	6	223	780			R	LR/nt		■
Pseudocheiridae	*Pseudochirulus herbertensis*	Herbert River Ringtail Possum	■	■	6	1381	2382			R	LR/nt		■
Phalangeridae	*Trichosurus vulpecula*	Common Brushtail Possum			2								
Phalangeridae	*Trichosurus vulpecula j.*	Coppery Brushtail Possum	■	■	5	43	235						■
Burryamyidae	*Cercartetus caudatus*	Long-tailed Pygmy Possum	■		6	3287	4471						
Acrobatidae	*Acrobates pygmaeus*	Feather-tail Glider			2								
Potoroidae	*Aepyprymnus rufescens*	Rufous Bettong			0								
Potoroidae	*Bettongia tropica*	Northern Bettong	■	■	1	403	1500			E	EN	EN	■
Potoroidae	*Hypsiprymnodon moschatus*	Musky Rat-kangaroo	■	■	6	3670	6681						■
Macropodidae	*Dendrolagus bennettianus*	Bennett's Tree-kangaroo	■	■	6	1119	1241			R	LR/nt		■
Macropodidae	*Dendrolagus lumholtzi*	Lumholtz's Tree-kangaroo	■	■	6	1175	5046			R	LR/nt		■
Macropodidae	*Lagorchestes conspicillatus*	Spectacled Hare-wallaby			0			■					■
Macropodidae	*Macropus agilis*	Agile Wallaby			0								
Macropodidae	*Macropus antilopinus*	Antilopine Kangaroo			0			■					
Macropodidae	*Macropus giganteus*	Eastern Grey Kangaroo			0								
Macropodidae	*Macropus parryi*	Whiptail Wallaby			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Macropodidae	*Macropus robustus*	Wallaroo			0			■					
Macropodidae	*Petrogale assimilis*	Allied Rock Wallaby			0								
Macropodidae	*Petrogale godmani*	Godman's Rock Wallaby			0								
Macropodidae	*Petrogale mareeba*	Mareeba Rock Wallaby			0					R			■
Macropodidae	*Petrogale sharmani*	Sharman's Rock Wallaby		■	0					R	LR/nt		■
Macropodidae	*Thylogale stigmatica*	Red-legged Pademelon	■		5	2839	8139						
Macropodidae	*Wallabia bicolor*	Swamp Wallaby			2								
Megadermatidae	*Macroderma gigas*	Ghost bat			0					V			■
Pteropodidae	*Macroglossus minimus*	Northern blossom bat			3								
Pteropodidae	*Nyctimene robinsoni*	Eastern tubenosed bat			4								
Pteropodidae	*Pteropus alecto*	Black flying-fox			3								
Pteropodidae	*Pteropus conspicillatus*	Spectacled flying-fox			3							V	■
Pteropodidae	*Pteropus scapulatus*	Little red flying-fox			0								
Pteropodidae	*Syconycteris australis*	Common blossom bat			3								
Emballonuridae	*Saccolaimus flaviventris*	Yellow-bellied sheathtail bat			0			■			LR/nt		■
Emballonuridae	*Saccolaimus saccolaimus*	Bare-rumped sheathtail bat			0					R		CR	■
Emballonuridae	*Taphozous australis*	Coastal sheathtail bat			0					V	LR/nt		■
Emballonuridae	*Taphozous georgianus*	Common sheathtail bat			0								
Molossidae	*Chaerophon jobensis*	Northern freetail bat			0								
Molossidae	*Mormopterus beccarii*	Beccari's freetail bat			0								
Molossidae	*Mormopterus loriae*	Little northern freetail bat			0								
Molossidae	*Mormopterus undescribed 2*	Eastern freetail bat			0								
Molossidae	*Tadarida australis*	White-striped freetail bat						■					
Rhinolophidae	*Rhinolophus megaphyllus*	Eastern horseshoe bat			3								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Rhinolophidae	*Rhinolophus philippinensis*	Large-eared horseshoe bat			0					R	LR/nt		■
Hipposideridae	*Hipposideros ater*	Dusky leafnosed bat			0								
Hipposideridae	*Hipposideros cervinus*	Fawn leafnosed bat			3					V			■
Hipposideridae	*Hipposideros diadema*	Diadem leafnosed bat								R			■
Hipposideridae	*Hipposideros semoni*	Semon's leafnosed bat			3					V	LR/nt	EN	■
Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat			0								
Vespertilionidae	*Chalinolobus morio*	Chocolate wattled bat			0			■					
Vespertilionidae	*Chalinolobus nigrogriseus*	Hoary wattled bat											
Vespertilionidae	*Kerivoula papuensis*	Golden-tipped bat			3					R			■
Vespertilionidae	*Miniopterus australis*	Little bentwing bat			3								
Vespertilionidae	*Miniopterus schreibersii*	Common bentwing bat									LR/nt		■
Vespertilionidae	*Murina florium*	Flute-nosed bat								V			■
Vespertilionidae	*Myotis adversus*	Large-footed myotis											
Vespertilionidae	*Nyctophilus bifax*	Northern longeared bat											
Vespertilionidae	*Nyctophilus geoffroyi*	Lesser longeared bat											
Vespertilionidae	*Nyctophilus gouldi*	Gould's longeared bat											
Vespertilionidae	*Scoteanax rueppellii*	Greater broadnosed bat			3								
Vespertilionidae	*Scotorepens balstoni*	Inland broadnosed bat											
Vespertilionidae	*Scotorepens greyii*	Little broadnosed bat			0								
Vespertilionidae	*Scotorepens sanborni*	Northern broadnosed bat			1								
Vespertilionidae	*Vespadelus pumilus*	Eastern forest bat			3								
Vespertilionidae	*Vespadelus troughtoni*	Eastern cave bat			0								
Muridae	*Hydromys chrysogaster*	Water Rat			2								
Muridae	*Leggadina lakedownensis*	Lakeland Downs Mouse			0			■			LR/nt		■

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Muridae	*Melomys burtoni*	Grassland Melomys			0								
Muridae	*Melomys cervinipes*	Fawn-footed Melomys	■		4	6605	12429						
Muridae	*Mesembriomys gouldii*	Black-footed Tree-rat			0						LR/nt		■
Muridae	*Mus musculus*	House Mouse			2				■				
Muridae	*Pogonomys mollipilosus*	Prehensile-tailed Rat	■		6	1264	2564						■
Muridae	*Pseudomys delicatulus*	Delicate Mouse			0								
Muridae	*Pseudomys gracilicaudatus*	Eastern Chestnut Mouse			0								
Muridae	*Pseudomys patrius*	Eastern Pebble-mound mouse			0						VU		■
Muridae	*Rattus fuscipes*	Bush Rat	■		4	2557	7729						
Muridae	*Rattus leucopus*	Cape York Rat	■		5	3248	7673						
Muridae	*Rattus lutreolus*	Swamp Rat			1								■
Muridae	*Rattus norvegicus*	Brown Rat							■				
Muridae	*Rattus rattus*	Black Rat			1				■				
Muridae	*Rattus sordidus*	Canefield Rat			1						LR/nt		■
Muridae	*Rattus tunneyi*	Pale Field Rat			0						LR/nt		■
Muridae	*Uromys caudimaculatus*	Giant White-tailed Rat	■		5	4491	8163						
Muridae	*Uromys hadrourus*	Masked White-tailed Rat	■	■	6	344	510				LR/nt		■
Muridae	*Xeromys myoides*	False Water-rat			0					V	VU		■
Muridae	*Zyzomys argurus*	Common Rock Rat			0								
Leporidae	*Lepus capensis*	Brown Hare			0				■				
Leporidae	*Oryctolagus cuniculus*	Rabbit							■				
Canidae	*Canis lupus dingo*	Dingo			3				■				
Canidae	*Vulpes vulpes*	Fox			0				■				
Felidae	*Felis catus*	Feral Cat			1				■				

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Equidae	*Equus caballus*	Feral Horse			0				■				
Suidae	*Sus scrofa*	Feral Pig			3				■				
BIRDS													
Casuariidae	*Casuarius casuarius*	Southern Cassowary	■		6	5408	7954			E	VU	EN	■
Casuariidae	*Dromaius novaehollandiae*	Emu			0								
Megapodiidae	*Alectura lathami*	Australian Brush Turkey	■		4	5586	8947						
Megapodiidae	*Megapodius reinwardt*	Orange-footed Scrubfowl	■		5	5002	8610						
Phasianidae	*Coturnix chinensis*	King Quail			0								
Phasianidae	*Coturnix pectoralis*	Stubble Quail			0								
Phasianidae	*Coturnix ypsilophora*	Brown Quail			0								
Anseranatidae	*Anseranas semipalmata*	Magpie Goose			0								
Anatidae	*Anas castanea*	Chestnut Teal			0			■					
Anatidae	*Anas gracilis*	Grey Teal			0								
Anatidae	*Anas rhynchotis*	Australasian Shoveller			0								
Anatidae	*Anas superciliosa*	Pacific Black Duck			0								
Anatidae	*Aythya australis*	Hardhead			0								
Anatidae	*Chenonetta jubata*	Australian Wood Duck			0								
Anatidae	*Cygnus atratus*	Black Swan			0								
Anatidae	*Dendrocygna arcuata*	Wandering Whistling-Duck			0								
Anatidae	*Dendrocygna eytoni*	Plumed Whistling-Duck			0								
Anatidae	*Malacorhynchus membranaceus*	Pink-eared Duck			0								
Anatidae	*Nettapus coromandelianus*	Cotton Pygmy-Goose			0					R			■
Anatidae	*Nettapus pulchellus*	Green Pygmy-Goose			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Anatidae	*Tadorna radjah*	Radjah Shelduck			0					R			■
Podicipedidae	*Podiceps cristatus*	Great-crested Grebe			0								
Podicipedidae	*Poliocephalus poliocephalus*	Hoary-headed Grebe			0								
Podicipedidae	*Tachybaptus novaehollandiae*	Australasian Grebe			0								
Anhingidae	*Anhinga melanogaster*	Darter			0								
Phalacrocoracidae	*Phalacrocorax carbo*	Great Cormorant			0								
Phalacrocoracidae	*Phalacrocorax melanoleucos*	Little Pied Cormorant			0								
Phalacrocoracidae	*Phalacrocorax sulcirostris*	Little Black Cormorant			0								
Phalacrocoracidae	*Phalacrocorax varius*	Pied Cormorant			0								
Pelicanidae	*Pelecanus conspicillatus*	Australian Pelican			0								
Ardeidae	*Ardea alba*	Great Egret			0								
Ardeidae	*Ardea ibis*	Cattle Egret			0								
Ardeidae	*Ardea intermedia*	Intermediate Egret			0								
Ardeidae	*Ardea pacifica*	White-necked Heron			0								
Ardeidae	*Ardea picata*	Pied Heron			0								
Ardeidae	*Ardea sumatrana*	Great-billed Heron			0								
Ardeidae	*Butorides striatus*	Striated Heron			0								
Ardeidae	*Egretta garzetta*	Little Egret			0								
Ardeidae	*Egretta novaehollandiae*	White-faced Heron			0								
Ardeidae	*Egretta sacra*	Eastern Reef Egret			0								
Ardeidae	*Ixobrychus flavicollis*	Black Bittern			0								
Ardeidae	*Ixobrychus minutus*	Little Bittern			0								
Ardeidae	*Nycticorax caledonicus*	Nankeen Night Heron			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Threskiornithidae	*Platalea flavipes*	Yellow-billed Spoonbill			0								
Threskiornithidae	*Platalea regia*	Royal Spoonbill			0								
Threskiornithidae	*Plegadis falcinellus*	Glossy Ibis			0								
Threskiornithidae	*Threskiornis molucca*	Australian White Ibis			0								
Threskiornithidae	*Threskiornis spinicollis*	Straw-necked Ibis			0								
Ciconiidae	*Ephippiorhynchus asiaticus*	Black-necked Stork			0					R	NT		■
Accipitridae	*Accipiter cirrhocephalus*	Collared Sparrowhawk			1								
Accipitridae	*Accipiter fasciatus*	Brown Goshawk			2								
Accipitridae	*Accipiter novaehollandiae*	Grey Goshawk	■		5	6127	8438			R			■
Accipitridae	*Aquila audax*	Wedge-tailed Eagle			2								
Accipitridae	*Aviceda subcristata*	Pacific Baza			2								
Accipitridae	*Circus approximans*	Swamp Harrier			2								
Accipitridae	*Circus assimilis*	Spotted Harrier			2								
Accipitridae	*Elanus axillaris*	Black-shouldered Kite			2								
Accipitridae	*Erythrotriorchis radiatus*	Red Goshawk			1					E	VU	V	■
Accipitridae	*Haliaeetus leucogaster*	White-bellied Sea-Eagle			1								
Accipitridae	*Haliastur indus*	Brahminy Kite			1								
Accipitridae	*Haliastur sphenurus*	Whistling Kite			1								
Accipitridae	*Hamirostra melanosternon*	Black-breasted Buzzard			0								
Accipitridae	*Hieraaetus morphnoides*	Little Eagle			0								
Accipitridae	*Lophoictinia isura*	Square-tailed Kite			0					R			■
Accipitridae	*Milvus migrans*	Black Kite			2								
Accipitridae	*Pandion haliaetus*	Osprey			2								
Falconidae	*Falco berigora*	Brown Falcon			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Falconidae	*Falco cenchroides*	Nankeen Kestrel			1								
Falconidae	*Falco hypoleucos*	Grey Falcon			1					R	NT		■
Falconidae	*Falco longipennis*	Australian Hobby			1								
Falconidae	*Falco peregrinus*	Peregrine Falcon			2								
Falconidae	*Falco subniger*	Black Falcon			0								
Gruidae	*Grus antigone*	Sarus Crane			0						VU		■
Gruidae	*Grus rubicundus*	Brolga			0								
Rallidae	*Amaurornis olivaceus*	Bush-hen			0								
Rallidae	*Fulica atra*	Eurasian Coot			0								
Rallidae	*Gallinula tenebrosa*	Dusky Moorhen			0								
Rallidae	*Gallinula ventralis*	Black-tailed native hen			0								
Rallidae	*Gallirallus philippensis*	Buff-banded Rail			1								
Rallidae	*Porphyrio porphyrio*	Purple Swamphen			1								
Rallidae	*Porzana cinerea*	White-browed Crake			0								
Rallidae	*Porzana fluminea*	Australian Spotted Crake			0								
Rallidae	*Porzana pusilla*	Baillons Crake			0								
Rallidae	*Porzana tabuensis*	Spotless Crake			0								
Rallidae	*Rallina tricolor*	Red-necked Crake	■		5	4865	6079						
Rallidae	*Rallus pectoralis*	Lewin's Rail			0					R			■
Otididae	*Ardeotis australis*	Australian Bustard			0			■					■
Turnicidae	*Turnix maculosa*	Red-backed Button-Quail			0								
Turnicidae	*Turnix olivii*	Buff-breasted Button-Quail			0					V	EN	EN	■
Turnicidae	*Turnix pyrrhothorax*	Red-chested Button-Quail			0								
Turnicidae	*Turnix varia*	Painted Button-Quail			1								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Turnicidae	*Turnix velox*	Little Button-Quail			0								
Scolopacidae	*Calidris acuminata*	Sharp-tailed Sandpiper			0								
Scolopacidae	*Tringa nebularia*	Greenshank			0								
Jacanidae	*Irediparra gallinacea*	Comb-crested Jacana			0								
Burhinidae	*Burhinus grallarius*	Bush Stone-Curlew			0						NT		■
Burhinidae	*Esacus neglectus*	Beach Stone-Curlew			0					V	NT		■
Haematopodidae	*Haematopus fuliginosus*	Sooty Oystercatcher			0					R			■
Recurvirostridae	*Himantopus himantopus*	Black-winged Stilt			0								
Charadriidae	*Charadrius ruficapillus*	Red-capped Plover			0								
Charadriidae	*Charadrius veredus*	Oriental Plover			0								
Charadriidae	*Elseyornis melanops*	Black-fronted Plover			0								
Charadriidae	*Erythrogonys cinctus*	Red-kneed Dotterel			0								
Charadriidae	*Vanellus miles*	Masked Lapwing			0								
Charadriidae	*Vanellus tricolor*	Banded Lapwing			0			■					
Glareolidae	*Stiltia isabella*	Australian Pratincole			0								
Laridae	*Chlidonias hybridus*	Whiskered Tern			0								
Laridae	*Sterna caspia*	Caspian Tern			0								
Columbidae	*Chalcophaps indica*	Emerald Dove	■		5	5896	8419						
Columbidae	*Columba leucomela*	White-headed Pigeon	■		5	2367	7822						
Columbidae	*Ducula bicolor*	Pied Imperial Pigeon	■		5	2631	11319						
Columbidae	*Geopelia cuneata*	Diamond Dove			0								
Columbidae	*Geopelia humeralis*	Bar-shouldered Dove			1								
Columbidae	*Geopelia striata*	Peaceful Dove			0								
Columbidae	*Geophaps scripta*	Squatter Pigeon			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Columbidae	*Lopholaimus antarcticus*	Topknot Pigeon	■		5	5655	16796						
Columbidae	*Macropygia amboinensis*	Brown Cuckoo-Dove	■		5	5007	8835						
Columbidae	*Ocyphaps lophotes*	Crested Pigeon			0								
Columbidae	*Phaps chalcoptera*	Common Bronzewing			0								
Columbidae	*Phaps histrionica*	Flock Bronzewing			0								
Columbidae	*Ptilinopus magnificus*	Wompoo Fruit-Dove	■		5	5454	8570						
Columbidae	*Ptilinopus regina*	Rose-crowned Fruit-Dove	■		5	4174	6839						
Columbidae	*Ptilinopus superbus*	Superb Fruit-Dove	■		5	4480	8800						
Columbidae	*Streptopelia chinensis*	Spotted Turtle-Dove			0				■				
Cacatuidae	*Cacatua galerita*	Sulphur-crested Cockatoo	■		3	11123	25595						
Cacatuidae	*Cacatua roseicapilla*	Galah			0								
Cacatuidae	*Cacatua sanguinea*	Little Corella			0								
Cacatuidae	*Calyptorhynchus banksii*	Red-tailed Black Cockatoo			2								
Cacatuidae	*Calyptorhynchus lathami*	Glossy Black Cockatoo			0			■		V			■
Cacatuidae	*Nymphicus hollandicus*	Cockatiel			0								
Psittacidae	*Alisterus scapularis*	Australian King Parrot	■		4	2388	8142						■
Psittacidae	*Aprosmictus erythropterus*	Red-winged Parrot			0								
Psittacidae	*Cyclopsitta diophthalma*	Double-eyed Fig-Parrot	■		5	4669	8197			V			■
Psittacidae	*Glossopsitta pusilla*	Little Lorikeet			0								
Psittacidae	*Melopsittacus undulatus*	Budgerigar			0								
Psittacidae	*Platycercus adscitus*	Pale-headed Rosella			0								
Psittacidae	*Platycercus elegans*	Crimson Rosella	■		4	2724	7407						
Psittacidae	*Trichoglossus chlorolepidotus*	Scaly-breasted Lorikeet	■		3	10735	25844						

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Psittacidae	*Trichoglossus haematodus*	Rainbow Lorikeet	■		4	13211	26801						
Cuculidae	*Cacomantis castaneiventris*	Chestnut-breasted Cuckoo	■		4	990	2307						
Cuculidae	*Cacomantis flabelliformis*	Fan-tailed Cuckoo	■		4	5982	23052						
Cuculidae	*Cacomantis variolosus*	Brush Cuckoo	■		3	12729	23626						
Cuculidae	*Chrysococcyx basalis*	Horsfield's Bronze-Cuckoo			2								
Cuculidae	*Chrysococcyx lucidus*	Shining Bronze-Cuckoo	■		4	5821	19166						
Cuculidae	*Chrysococcyx minutillus*	Little Bronze-Cuckoo			4								
Cuculidae	*Chrysococcyx osculans*	Black-eared Cuckoo			0								
Cuculidae	*Chrysococcyx russatus*	Gould's Bronze-Cuckoo	■		4	4233	10013						
Cuculidae	*Cuculus pallidus*	Pallid Cuckoo			0								
Cuculidae	*Cuculus saturatus*	Oriental Cuckoo	■		3	5071	9026						
Cuculidae	*Eudynamys scolopacea*	Common Koel	■		3	9106	21467						
Cuculidae	*Scythrops novaehollandiae*	Channel-billed Cuckoo			3								
Centropodidae	*Centropus phasianinus*	Pheasant Coucal			1								
Strigidae	*Ninox connivens*	Barking Owl			0								
Strigidae	*Ninox novaeseelandiae*	Southern Boobook	■		3	5766	24967						■
Strigidae	*Ninox rufa*	Rufous Owl	■		3	3693	8952			V			■
Tytonidae	*Tyto alba*	Barn Owl			0								
Tytonidae	*Tyto capensis*	Grass Owl			0								
Tytonidae	*Tyto multipunctata*	Lesser Sooty Owl	■	■	5	3453	8561						■
Tytonidae	*Tyto novaehollandiae*	Masked Owl			0								■
Podargidae	*Podargus papuensis*	Papuan Frogmouth	■		4	6737	9741						
Podargidae	*Podargus strigoides*	Tawny Frogmouth			1								
Caprimulgidae	*Caprimulgus macrurus*	Large-tailed Nightjar			1								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Caprimulgidae	*Eurostopodus argus*	Spotted Nightjar			0								
Caprimulgidae	*Eurostopodus mystacalis*	White-throated Nightjar			1								
Aegothelidae	*Aegotheles cristatus*	Australian Owlet-nightjar			1								
Apodidae	*Apus affinis*	House Swift			0								
Apodidae	*Apus pacificus*	Fork-tailed Swift			2								
Apodidae	*Collocalia esculenta*	Glossy Swiftlet			0								
Apodidae	*Collocalia spodiopygius*	White-rumped Swiftlet	■		5	9121	23643			R			■
Apodidae	*Collocalia vanikorensis*	Uniform Swiftlet			0								
Apodidae	*Hirundapus caudacutus*	White-throated Needletail			3								
Alcedinidae	*Alcedo azurea*	Azure Kingfisher	■		4	13785	20048						
Alcedinidae	*Alcedo pusilla*	Little Kingfisher	■		4	6373	10313						
Halcyonidae	*Dacelo leachii*	Blue-winged Kookaburra			0								
Halcyonidae	*Dacelo novaeguineae*	Laughing Kookaburra	■		2	12870	26708						
Halcyonidae	*Tanysiptera sylvia*	Buff-breasted Paradise-Kingfisher	■		5	6624	11833						
Halcyonidae	*Todiramphus chloris*	Collared Kingfisher			0								
Halcyonidae	*Todiramphus macleayii*	Forest Kingfisher			1								
Halcyonidae	*Todiramphus pyrrhopygia*	Red-backed Kingfisher			0			■					
Halcyonidae	*Todiramphus sanctus*	Sacred Kingfisher			2								
Meropidae	*Merops ornatus*	Rainbow Bee-eater	■		3	13009	25972						
Coraciidae	*Eurystomus orientalis*	Dollarbird			1								
Pittidae	*Pitta versicolor*	Noisy Pitta	■		5	5899	8575						
Climacteridae	*Climacteris picumnus*	Brown Treecreeper			0								
Climacteridae	*Cormobates leucophaeus*	White-throated Treecreeper	■		5	2456	7823						

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Maluridae	*Malurus amabilis*	Lovely Fairy-wren			2								
Maluridae	*Malurus melanocephalus*	Red-backed Fairy-wren			1								
Pardalotidae	*Pardalotus punctatus*	Spotted Pardalote			1								
Pardalotidae	*Pardalotus rubricatus*	Red-browed Pardalote			0								
Pardalotidae	*Pardalotus striatus*	Striated Pardalote			1								
Acanthizidae	*Acanthiza katherina*	Mountain Thornbill	■	■	6	1690	3463						■
Acanthizidae	*Acanthiza nana*	Yellow Thornbill			0								
Acanthizidae	*Acanthiza reguloides*	Buff-rumped Thornbill			0								
Acanthizidae	*Gerygone levigaster*	Mangrove Gerygone			0								
Acanthizidae	*Gerygone magnirostris*	Large-billed Gerygone	■		3	2047	4975						
Acanthizidae	*Gerygone mouki*	Brown Gerygone	■		6	4094	8588						■
Acanthizidae	*Gerygone olivacea*	White-throated Gerygone			0								
Acanthizidae	*Gerygone palpebrosa*	Fairy Gerygone			3								
Acanthizidae	*Oreoscopus gutturalis*	Fernwren	■	■	6	2292	4277						■
Acanthizidae	*Sericornis citreogularis*	Yellow-throated Scrubwren	■		5	2011	5913						
Acanthizidae	*Sericornis frontalis*	White-browed Scrubwren	■		3	2409	6570						
Acanthizidae	*Sericornis keri*	Atherton Scrubwren	■	■	6	1390	4358						■
Acanthizidae	*Sericornis magnirostris*	Large-billed Scrubwren	■		5	5613	8756						
Acanthizidae	*Smicrornis brevirostris*	Weebill			1								
Meliphagidae	*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater			0			■					
Meliphagidae	*Acanthorhynchus tenuirostris*	Eastern Spinebill	■		3	3045	12363						
Meliphagidae	*Certhionyx pectoralis*	Banded Honeyeater			0								
Meliphagidae	*Conopophila rufogularis*	Rufous-throated Honeyeater			1								
Meliphagidae	*Entomyzon cyanotis*	Blue-faced Honeyeater			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Meliphagidae	*Lichenostomus chrysops*	Yellow-faced Honeyeater			1								
Meliphagidae	*Lichenostomus fasciogularis*	Mangrove Honeyeater			0								
Meliphagidae	*Lichenostomus flavescens*	Yellow-tinted honeyeater			0			■					
Meliphagidae	*Lichenostomus flavus*	Yellow Honeyeater			0								
Meliphagidae	*Lichenostomus frenatus*	Bridled Honeyeater	■	■	5	3631	9280						■
Meliphagidae	*Lichenostomus fuscus*	Fuscous honeyeater			0								
Meliphagidae	*Lichenostomus unicolor*	White-gaped Honeyeater			0								
Meliphagidae	*Lichenostomus versicolor*	Varied Honeyeater			0								
Meliphagidae	*Lichmera indistincta*	Brown Honeyeater			1								
Meliphagidae	*Manorina flavigula*	Yellow-throated Miner			0			■					
Meliphagidae	*Manorina melanocephala*	Noisy Miner			0								
Meliphagidae	*Meliphaga gracilis*	Graceful Honeyeater	■		5	4899	8712						
Meliphagidae	*Meliphaga lewinii*	Lewin's Honeyeater	■		5	3376	8884						
Meliphagidae	*Meliphaga notata*	Yellow-spotted Honeyeater	■		5	5483	8691						
Meliphagidae	*Melithreptus albogularis*	White-throated Honeyeater			0								
Meliphagidae	*Melithreptus gularis*	Black-chinned Honeyeater			0					R			■
Meliphagidae	*Melithreptus lunatus*	White-naped Honeyeater			2								
Meliphagidae	*Myzomela obscura*	Dusky Honeyeater	■		3	9630	21384						
Meliphagidae	*Myzomela sanguinolenta*	Scarlet Honeyeater	■		3	7394	22774						
Meliphagidae	*Philemon argenticeps*	Silver-crowned Friarbird			0								
Meliphagidae	*Philemon buceroides*	Helmeted Friarbird	■		3	8330	16618						
Meliphagidae	*Philemon citreogularis*	Little Friarbird			1								
Meliphagidae	*Philemon corniculatus*	Noisy Friarbird			1								
Meliphagidae	*Phylidonyris nigra*	White-cheeked Honeyeater			2								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Meliphagidae	*Plectorhyncha lanceolata*	Striped Honeyeater			0								
Meliphagidae	*Ramsayornis fasciatus*	Bar-breasted Honeyeater			3								
Meliphagidae	*Ramsayornis modestus*	Brown-backed Honeyeater			0								
Meliphagidae	*Trichodere cockerelli*	White-streaked Honeyeater			0								
Meliphagidae	*Xanthotis macleayana*	Macleay's Honeyeater	■	■	5	5924	9260						■
Petroicidae	*Eopsaltria australis*	Eastern Yellow Robin			1								
Petroicidae	*Eopsaltria pulverulenta*	Mangrove Robin			0								
Petroicidae	*Heteromyias albispecularis*	Grey-headed Robin	■		5	3485	8182						■
Petroicidae	*Microeca fascinans*	Jacky Winter			0								
Petroicidae	*Microeca flavigaster*	Lemon-bellied Flycatcher			0								
Petroicidae	*Poecilodryas superciliosa*	White-browed Robin			4								
Petroicidae	*Tregellasia capito*	Pale-yellow Robin	■		5	4881	8712						■
Orthonychidae	*Orthonyx spaldingii*	Chowchilla	■	■	5	2985	8037						■
Pomatostomidae	*Pomatostomus temporalis*	Grey-crowned Babbler			0			■					
Eupetidae	*Psophodes olivaceus*	Eastern Whipbird	■		5	3627	8466						■
Neosittidae	*Daphoenositta chrysoptera*	Varied Sittella			0								
Pachycephalidae	*Colluricincla boweri*	Bowers Shrike-Thrush	■	■	6	1766	6655						■
Pachycephalidae	*Colluricincla harmonica*	Grey Shrike-Thrush			0								
Pachycephalidae	*Colluricincla megarhyncha*	Little Shrike-Thrush	■		4	5780	8889						
Pachycephalidae	*Falcunculus frontatus*	Crested Shrike-tit			1								■
Pachycephalidae	*Pachycephala melanura*	Mangrove Golden Whistler			2								
Pachycephalidae	*Pachycephala pectoralis*	Golden Whistler	■		4	4929	17335						
Pachycephalidae	*Pachycephala rufiventris*	Rufous Whistler			1								
Pachycephalidae	*Pachycephala simplex*	Grey Whistler			3								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Dicruridae	*Arses kaupi*	Pied Monarch	■	■	5	4587	7733						■
Dicruridae	*Dicrurus bracteatus*	Spangled Drongo	■		3	12133	25220						
Dicruridae	*Grallina cyanoleuca*	Magpie Lark			0								
Dicruridae	*Machaerirhynchus flaviventer*	Yellow-breasted Boatbill	■		5	5128	8664						
Dicruridae	*Monarcha frater*	Black-winged Monarch			4								
Dicruridae	*Monarcha leucotis*	White-eared Monarch	■		5	5648	10284						
Dicruridae	*Monarcha melanopsis*	Black-faced Monarch	■		5	3408	8883						
Dicruridae	*Monarcha trivirgatus*	Spectacled Monarch	■		5	5967	8854						
Dicruridae	*Myiagra alecto*	Shining Flycatcher			2								
Dicruridae	*Myiagra cyanoleuca*	Satin Flycatcher			0								
Dicruridae	*Myiagra inquieta*	Restless Flycatcher			0								
Dicruridae	*Myiagra rubecula*	Leaden Flycatcher			0								
Dicruridae	*Myiagra ruficollis*	Broad-billed Flycatcher			0								
Dicruridae	*Rhipidura fuliginosa*	Grey Fantail	■		3	9867	27956						
Dicruridae	*Rhipidura leucophrys*	Willie Wagtail			0								
Dicruridae	*Rhipidura rufifrons*	Rufous Fantail	■		4	9213	22809						
Dicruridae	*Rhipidura rufiventris*	Northern Fantail			2								
Campephagidae	*Coracina lineata*	Barred Cuckoo-Shrike	■		4	4223	8402						
Campephagidae	*Coracina maxima*	Ground Cuckoo-shrike			0			■					
Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike			0								
Campephagidae	*Coracina papuensis*	White-bellied Cuckoo-Shrike			1								
Campephagidae	*Coracina tenuirostris*	Cicadabird			2								
Campephagidae	*Lalage leucomela*	Varied Triller	■		3	10849	21900						
Campephagidae	*Lalage sueurii*	White-winged Triller			1								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Oriolidae	*Oriolus flavocinctus*	Yellow Oriole	■		3	5497	16958						
Oriolidae	*Oriolus sagittatus*	Olive-backed Oriole	■		3	10274	20080						
Oriolidae	*Sphecotheres viridis*	Figbird			3								
Artamidae	*Artamus cinereus*	Black-faced Woodswallow			0			■					
Artamidae	*Artamus cyanopterus*	Dusky Woodswallow			0								
Artamidae	*Artamus leucorynchus*	White-breasted Woodswallow	■		3	9269	22059						
Artamidae	*Artamus minor*	Little Woodswallow			0								
Artamidae	*Artamus personatus*	Masked Woodswallow			0								
Artamidae	*Artamus superciliosus*	White-browed Woodswallow			0								
Artamidae	*Cracticus nigrogularis*	Pied Butcherbird			0								
Artamidae	*Cracticus quoyi*	Black Butcherbird	■		4	5340	8953						
Artamidae	*Cracticus torquatus*	Grey Butcherbird			0								
Artamidae	*Gymnorhina tibicen*	Australian Magpie			0								
Artamidae	*Strepera graculina*	Pied Currawong	■		4	8016	24791						
Paradisaeidae	*Ptiloris victoriae*	Victoria's Riflebird	■	■	5	4205	8646						■
Corvidae	*Corvus coronoides*	Australian Raven			0			■					
Corvidae	*Corvus orru*	Torresian Crow			0								
Corcoracidae	*Corcorax melanorhamphos*	White-winged Chough			0			■					
Corcoracidae	*Struthidea cinerea*	Apostlebird			0			■					
Ptilonorhynchidae	*Ailuroedus melanotis*	Spotted Catbird	■		5	4417	8873						■
Ptilonorhynchidae	*Chlamydera nuchalis*	Great Bowerbird			0								
Ptilonorhynchidae	*Prionodura newtoniana*	Golden Bowerbird	■	■	6	1244	2451						■
Ptilonorhynchidae	*Ptilonorhynchus violaceus*	Satin Bowerbird	■		5	1491	4849						■
Ptilonorhynchidae	*Scenopoeetes dentirostris*	Tooth-billed Bowerbird	■	■	6	1585	6331						■

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Alaudidae	*Mirafra javanica*	Singing Bushlark			0								
Motacillidae	*Anthus novaeseelandiae*	Richard's Pipit			0								
Passeridae	*Passer domesticus*	House Sparrow			0				■				
Nectarinidae	*Nectarinia jugularis*	Yellow-bellied Sunbird			2								
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird	■		3	12734	24181						
Hirundinidae	*Hirundo ariel*	Fairy Martin			0								
Hirundinidae	*Hirundo daurica*	Red-rumped Swallow			0								
Hirundinidae	*Hirundo neoxena*	Welcome Swallow			0								
Hirundinidae	*Hirundo nigricans*	Tree Martin			0								
Hirundinidae	*Hirundo rustica*	Barn Swallow			1								
Sylviidae	*Acrocephalus orientalis*	Oriental Reed-warbler			0								
Sylviidae	*Acrocephalus stentoreus*	Clamorous Reed-Warbler			0								
Sylviidae	*Cinclorhamphus cruralis*	Brown Songlark			0			■					
Sylviidae	*Cinclorhamphus mathewsi*	Rufous Songlark			0								
Sylviidae	*Cisticola exilis*	Golden-headed Cisticola			0								
Sylviidae	*Megalurus gramineus*	Little Grassbird			0								
Sylviidae	*Megalurus timoriensis*	Tawny Grassbird			0								
Zosteropidae	*Zosterops lateralis*	Silvereye	■		4	10261	22803						
Muscicapidae	*Zoothera heinei*	Russet-tailed Thrush			6								
Muscicapidae	*Zoothera lunulata*	Bassian Thrush	■		5	1765	2423						
Sturnidae	*Acridotheres tristis*	Common Myna			0				■				
Sturnidae	*Aplonis metallica*	Metallic Starling	■		4	7832	13684						
Estrildidae	*Erythrura trichroa*	Blue-faced Parrot-Finch	■		3					R			■
Estrildidae	*Lonchura castaneothorax*	Chestnut-breasted Mannikin			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Estrildidae	*Lonchura punctulata*	Nutmeg Mannikin			0				■				
Estrildidae	*Neochmia modesta*	Plum-headed Finch			0			■					
Estrildidae	*Neochmia phaeton*	Crimson Finch			0					V			■
Estrildidae	*Neochmia ruficauda*	Star Finch			0					E	NT	EN	■
Estrildidae	*Neochmia temporalis*	Red-browed Finch			2								
Estrildidae	*Poephila cincta*	Black-throated Finch			0					V	NT	V	■
Estrildidae	*Taeniopygia bichenovii*	Double-barred Finch			0								
Estrildidae	*Taeniopygia guttata*	Zebra Finch			0								
REPTILES													
Crocodylidae	*Crocodylus johnstoni*	Freshwater Crocodile			0								
Crocodylidae	*Crocodylus porosus*	Estuarine Crocodile			3					V			■
Chelidae	*Chelodina longicollis*	Eastern Snake-necked Turtle			0			■					
Chelidae	*Chelodina novaeguineae*	New Guinea Snake-necked Turtle			0								
Chelidae	*Chelodina rugosa*	Northern Snake-necked Turtle			0			■					
Chelidae	*Elseya dentata*	Northern Snapping Turtle			0								
Chelidae	*Elseya latisternum*	Sawshell Turtle			3								
Chelidae	*Emydura macquarii*	Krefft's RiverTurtle			3								
Gekkonidae	*Carphodactylus laevis*	Chameleon Gecko	■	■	6	2004	3340						■
Gekkonidae	*Cyrtodactylus louisiadensis*	Ring-tailed Gecko			2								
Gekkonidae	*Diplodactylus steindachneri*	Box-patterned Gecko			0			■					
Gekkonidae	*Gehyra dubia*	No common name			0								
Gekkonidae	*Gehyra nana*	No common name			0			■					
Gekkonidae	*Gehyra variegata*	Tree Dtella			0			■					

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Gekkonidae	*Hemidactylus frenatus*	House Gecko			0				■				
Gekkonidae	*Heteronotia binoei*	Bynoe's Gecko			0								
Gekkonidae	*Lepidodactylus lugubris*	Mourning Gecko			0								
Gekkonidae	*Nactus cheverti*	No common name	■		3	1991	2914						
Gekkonidae	*Nactus galgajuga*	Black Mountain Gecko	■	■	2					R			■
Gekkonidae	*Nephrurus asper*	Prickly Knob-tailed Gecko			0			■					
Gekkonidae	*Oedura castelnaui*	Northern Velvet Gecko			0								
Gekkonidae	*Oedura coggeri*	Northern Spotted Velvet Gecko			0								
Gekkonidae	*Oedura monilis*	Ocellated Velvet Gecko			1								
Gekkonidae	*Oedura rhombifer*	Zigzag Velvet Gecko			0								
Gekkonidae	*Phyllurus amnicola*	Mt.Elliot Leaf-tail gecko		■	4								■
Gekkonidae	*Phyllurus gulbaru*	Gulbaru Gecko		■	4								■
Gekkonidae	*Saltuarius comutus*	Northern Leaf-tailed Gecko	■	■	5	3484	9028						■
Gekkonidae	*Strophurus taenicauda*	Golden-Tailed Gecko			0			■		R			■
Gekkonidae	*Strophurus williamsi*	Eastern Spiny-tailed Gecko			0			■					
Pygopodidae	*Delma labialis*	Striped-tailed Delma			3					V	VU	V	■
Pygopodidae	*Delma mitella*	No common name		■	4					R		V	■
Pygopodidae	*Delma tincta*	No common name			1								
Pygopodidae	*Lialis burtonis*	Burton's Legless Lizard			1								
Pygopodidae	*Pygopus lepidopodus*	Common Scaly-Foot			0								
Pygopodidae	*Pygopus schraderi*	Hooded Scaly-Foot			2								
Agamidae	*Amphibolurus gilberti*	Gilbert's Dragon			0			■					
Agamidae	*Amphibolurus nobbi*	Nobbi			0			■					

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Agamidae	*Chlamydosaurus kingii*	Frill-necked Lizard			0								
Agamidae	*Diporiphora australis*	Tommy Roundhead Dragon			0								
Agamidae	*Diporiphora bilineata*	Two-lined Dragon			0			■					
Agamidae	*Hypsilurus boydii*	Boyd's Forest Dragon	■	■	6	3766	6410						■
Agamidae	*Physignathus lesueurii*	Eastern Water Dragon	■		4	9723	17309						
Agamidae	*Pogona barbata*	Bearded Dragon			0								
Varanidae	*Varanus gouldii*	Gould's Goanna/Sand Monitor			0			■					
Varanidae	*Varanus panoptes*	Yellow-spotted Monitor			0			■					
Varanidae	*Varanus scalaris*	Spotted Tree Monitor	■		4	4213	9049						
Varanidae	*Varanus semiremex*	Rusty Monitor			0			■		R			■
Varanidae	*Varanus storri*	Storr's Monitor			0			■					
Varanidae	*Varanus tristis*	Black Headed Monitor			3			■					
Varanidae	*Varanus varius*	Lace Monitor			3								
Scincidae	*Anomalopus gowi*	No common name			3								■
Scincidae	*Calyptotis thorntonensis*	Thornton Peak Skink	■	■	6	35	58			R			■
Scincidae	*Carlia aeratus*	No common name			3								
Scincidae	*Carlia foliorum*	No common name			0								
Scincidae	*Carlia jarnoldae*	No common name			0								
Scincidae	*Carlia laevis*	No common name		■	3								■
Scincidae	*Carlia longipes*	No common name			0								
Scincidae	*Carlia munda*	No common name			0			■					
Scincidae	*Carlia mundivensis*	No common name			0								
Scincidae	*Carlia pectoralis*	No common name			1								
Scincidae	*Carlia rhomboidalis*	No common name			4								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Scincidae	*Carlia rostralis*	No common name			2								
Scincidae	*Carlia rubrigularis*	Northern Red-throated Skink	■	■	5	6889	18373						■
Scincidae	*Carlia schmeltzii*	No common name			0								
Scincidae	*Carlia scirtetis*	Black Mountain Skink		■	2					R			■
Scincidae	*Carlia storri*	No common name			0								
Scincidae	*Carlia tanneri*	No common name			3			■		R			■
Scincidae	*Carlia vivax*	No common name			0								
Scincidae	*Coeranoscincus frontalis*	No common name	■	■	6	1296	2430			R			■
Scincidae	*Cryptoblepharus litoralis*	No common name			0								
Scincidae	*Cryptoblepharus plagiocephalus*	No common name			2								
Scincidae	*Cryptoblepharus virgatus*	No common name			2								
Scincidae	*Ctenotus essingtoni*	No common name			0			■					
Scincidae	*Ctenotus eutaenius*	No common name			0			■					
Scincidae	*Ctenotus monticola*	No common name			0			E?					■
Scincidae	*Ctenotus nullum*	No common name			0			■					
Scincidae	*Ctenotus robustus*	No common name			0								
Scincidae	*Ctenotus spaldingi*	No common name			0								
Scincidae	*Ctenotus taeniolatus*	Copper-tailed Skink			0								
Scincidae	*Ctenotus terrareginae*	No common name		■	0								■
Scincidae	*Cyclodomorphus gerrardii*	Pink-tongued Lizard			3								
Scincidae	*Egernia frerei*	Major Skink			3								
Scincidae	*Egernia rugosa*	Yakka Skink			0			■		V		V	■
Scincidae	*Egernia striolata*	Tree Skink			0			■					

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Scincidae	*Eulamprus brachysoma*	No common name			3								
Scincidae	*Eulamprus frerei*	No common name	■	■	6	48	71			R			■
Scincidae	*Eulamprus quoyii*	Eastern Water Skink			4								
Scincidae	*Eulamprus tigrinus*	No common name	■	■	6	3781	5362			R			■
Scincidae	*Glaphyromorphus clandestinus*	Mt Elliot skink		■	3								■
Scincidae	*Glaphyromorphus cracens*	No common name			0			■					
Scincidae	*Glaphyromorphus crassicaudus*	No common name			3								
Scincidae	*Glaphyromorphus fuscicaudis*	Grey-tailed Skink	■	■	5	2891	5282						■
Scincidae	*Glaphyromorphus mjobergi*	No common name	■	■	6	820	1339			R			■
Scincidae	*Glaphyromorphus nigricaudis*	No common name			2								
Scincidae	*Glaphyromorphus pardalis*	No common name			0								
Scincidae	*Glaphyromorphus pumilus*	No common name			1								
Scincidae	*Glaphyromorphus punctulatus*	No common name			2								
Scincidae	*Gnypetoscincus queenslandiae*	Prickly Forest Skink	■	■	6	3628	5851						■
Scincidae	*Lampropholis coggeri*	No common name	■	■	5	3810	7322						■
Scincidae	*Lampropholis delicata*	No common name			3								
Scincidae	*Lampropholis mirabilis*	No common name		■	3					R			■
Scincidae	*Lampropholis robertsi*	No common name	■	■	6	358	575			R			■
Scincidae	*Lerista storri*	No common name			0			■		R			■
Scincidae	*Lerista zonulata*	No common name			0			■					
Scincidae	*Menetia greyii*	No common name			0								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Scincidae	*Menetia koshlandae*	No common name			3								
Scincidae	*Menetia sadlieri*	No common name		■	0					R			■
Scincidae	*Menetia timlowi*	No common name			0								
Scincidae	*Morethia taeniopleura*	Fire-tailed Skink			0								
Scincidae	*Proablepharus tenuis*	No common name			0								
Scincidae	*Saproscincus basiliscus*	No common name	■	■	5	4226	7996						■
Scincidae	*Saproscincus czechurai*	Czechura's Litter Skink	■	■	6	514	1328						■
Scincidae	*Saproscincus lewisi*	No common name	■	■	5	648	959						■
Scincidae	*Saproscincus tetradactylus*	Four-toed Litter Skink	■	■	6	3987	6548						■
Scincidae	*Techmarscincus jigurru*	Bartle Frere Skink	■	■	6	9	12			R			■
Scincidae	*Tiliqua scincoides*	Eastern Blue-tongue Lizard			0								
Typhlopidae	*Ramphotyphlops affinis*	No common name			3								
Typhlopidae	*Ramphotyphlops broomi*	No common name			3					R			■
Typhlopidae	*Ramphotyphlops ligatus*	No common name			3			■					
Typhlopidae	*Ramphotyphlops polygrammicus*	No common name			3								
Typhlopidae	*Ramphotyphlops proximus*	No common name			3								
Typhlopidae	*Ramphotyphlops robertsi*	No common name		■	3								■
Typhlopidae	*Ramphotyphlops unguirostris*	No common name			3								
Typhlopidae	*Ramphotyphlops wiedii*	No common name			3								
Boidae	*Antaresia maculosus*	Spotted Python			2								
Boidae	*Antaresia stimsoni*	Stimson's Python			0			■					
Boidae	*Aspidites melanocephalus*	Black-headed Python			0								
Boidae	*Liasis mackloti*	Water Python			2								

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Boidae	*Morelia kinghorni*	Amethystine Python	■		5	4587	8056						
Boidae	*Morelia spilota*	Carpet Python	■		5	10066	20723						
Acrochordidae	*Acrochordus granulatus*	Little File Snake			0								
Colubridae	*Boiga irregularis*	Brown Tree Snake	■		3	11618	20354						
Colubridae	*Dendrelaphis calligastra*	Northern Tree Snake	■		4	1668	2614						
Colubridae	*Dendrelaphis punctulata*	Common Tree Snake	■		3	9581	17040						
Colubridae	*Enhydris polylepis*	MacLeay's Water Snake			0								
Colubridae	*Stegonotus cucullatus*	Slaty-grey Snake	■		4	8671	11603						
Colubridae	*Tropidonophis mairii*	Keelback	■		3	7033	11157						
Elapidae	*Acanthophis antarcticus*	Common Death Adder			1					R			■
Elapidae	*Acanthophis praelongus*	Northern Death Adder			1								
Elapidae	*Antairoserpens warro*	No common name			0			■		R			■
Elapidae	*Cacophis churchilli*	No common name	■	■	4	6283	12147						■
Elapidae	*Cacophis squamulosus*	Golden Crowned Snake			5								
Elapidae	*Cryptophis boschmai*	Carpentaria Whip-snake			0			■					
Elapidae	*Cryptophis nigrescens*	Eastern Smalleyed Snake	■		5	4993	12616						
Elapidae	*Cryptophis nigrostriatus*	Black-striped Snake			0								
Elapidae	*Demansia papuensis*	Greater Black Whipsnake			0								
Elapidae	*Demansia psammophis*	Yellow-faced Whipsnake	■		3	3122	11686						
Elapidae	*Demansia torquata*	Collared Whipsnake			3								
Elapidae	*Demansia vestigiata*	Black Whipsnake			2								
Elapidae	*Furina barnardi*	Yellow-naped Snake			3					R			■
Elapidae	*Furina ornata*	Orange-naped Snake			3								
Elapidae	*Furina tristis*	Brown-headed Snake			3			■					

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Elapidae	*Hemiaspis signata*	Black-bellied Swamp Snake	■		3	3915	8452						
Elapidae	*Hoplocephalus bitorquatus*	Pale-headed Snake			0			■					
Elapidae	*Oxyuranus scutellatus*	Taipan			2								
Elapidae	*Pseudechis australis*	King Brown Snake			0			■					
Elapidae	*Pseudechis porphyriacus*	Red-bellied Black Snake	■		4	6675	15139						
Elapidae	*Pseudonaja textilis*	Eastern Brown Snake			1								
Elapidae	*Suta suta*	Myall / Curl Snake			0			■					
Elapidae	*Tropidechis carinatus*	Rough-scaled Snake	■		5	937	1807						
Elapidae	*Vermicella annulata*	Bandy Bandy			3								
FROGS													
Hylidae	*Cyclorana alboguttata*	Greenstripe Frog			0			■					
Hylidae	*Cyclorana brevipes*	Superb Collared-Frog			0								
Hylidae	*Cyclorana novaehollandiae*	Eastern Snapping-Frog			0			■					
Hylidae	*Litoria bicolor*	Northern Sedgefrog			2								
Hylidae	*Litoria caerulea*	Green Treefrog			2								
Hylidae	*Litoria fallax*	Eastern Sedgefrog	■		3	8712	17167						
Hylidae	*Litoria genimaculata*	Green-eyed Treefrog	■	■	5	5411	8640			R			■
Hylidae	*Litoria gracilenta*	Graceful Treefrog			2								
Hylidae	*Litoria inermis*	Bumpy Rocketfrog			0								
Hylidae	*Litoria infrafrenata*	White-lipped Treefrog	■		4	5515	9924						
Hylidae	*Litoria jungguy*	No common name		■	5								■
Hylidae	*Litoria latopalmata*	Broad-palmed Rocketfrog			0								
Hylidae	*Litoria lesueuri*	Stony-creek Frog	■		3	10760	22526						
Hylidae	*Litoria lorica*	Armoured Mistfrog	■	■	6	648	1249			E	CR	EN	■

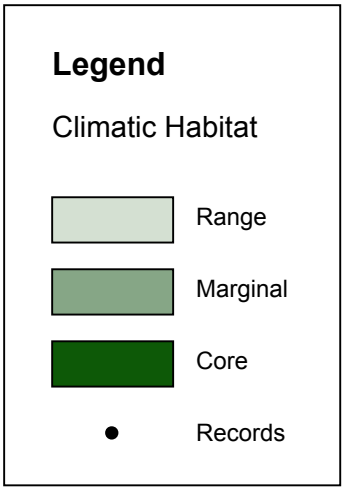
Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Hylidae	*Litoria microbelos*	Pygmy Rocketfrog			0								
Hylidae	*Litoria nannotis*	Waterfall Frog	■	■	5	2948	5615			E	EN	EN	■
Hylidae	*Litoria nasuta*	Striped Rocketfrog	■		1								
Hylidae	*Litoria nigrofrenata*	Tawny Rocketfrog			1								
Hylidae	*Litoria nyakalensis*	Mountain Mistfrog	■	■	6					E	CR D	EN	■
Hylidae	*Litoria pallida*	Peach-sided Rocketfrog			0			■					
Hylidae	*Litoria revelata*	Whirring Treefrog			5					R			■
Hylidae	*Litoria rheocola*	Common Mistfrog	■	■	6	2810	4617			E	EN	EN	■
Hylidae	*Litoria rothii*	Roth'sTreefrog			1								
Hylidae	*Litoria rubella*	Naked Treefrog			1								
Hylidae	*Litoria wilcoxii*	No common name			2								
Hylidae	*Litoria xanthomera*	Northern Orange-eyed Treefrog	■	■	4	2596	7450						■
Hylidae	*Nyctimystes dayi*	Australian Lace-lid	■	■	5	1759	3218			E	EN	EN	■
Myobatrachidae	*Crinia deserticola*	Chirping Froglet			0								
Myobatrachidae	*Crinia remota*	Torrid Froglet			0								
Myobatrachidae	*Limnodynastes convexiusculus*	Marbled Frog			0								
Myobatrachidae	*Limnodynastes ornatus*	Ornate Burrowing Frog			1								
Myobatrachidae	*Limnodynastes peronii*	Striped Marshfrog	■		3	4308	16936						
Myobatrachidae	*Limnodynastes tasmaniensis*	Spotted Marshfrog			0								
Myobatrachidae	*Limnodynastes terraereginae*	Scarlet-sided Pobblebonk			0								
Myobatrachidae	*Mixophyes schevilli*	Northern Barred Frog	■	■	5	3515	8572						■
Myobatrachidae	*Mixophyes species spp nov.*	Northern Barred Frog sppA	■	■	6	123	264						■
Myobatrachidae	*Notaden melanoscaphus*	Brown Orbfrog			0			■					

Family	Species Name	Common Name	Map	End.	RF	Core Dist. Area	Range	Edge	Intro.	NC Act	IUCN	EPBC Act	VIS
Myobatrachidae	*Pseudophryne covacevichae*	Magnificent Broodfog	■	■	0	204	469			V	EN	V	■
Myobatrachidae	*Taudactylus acutirostris*	Sharp-snouted Dayfrog	■	■	6	2949	5334			E	CR	EX	■
Myobatrachidae	*Taudactylus rheophilus*	Northern Tinkerfrog	■	■	6	848	2628			E	CR	EN	■
Myobatrachidae	*Uperoleia altissima*	Tableland Gungan	■		0								
Myobatrachidae	*Uperoleia lithomoda*	Stonemason Gungan			0								
Myobatrachidae	*Uperoleia littlejohni*	No common name			0			■					
Myobatrachidae	*Uperoleia mimula*	Torres Gungan			0								
Microhylidae	*Austrochaperina fryi*	Cricket Chirper	■	■	5	2412	4661			R			■
Microhylidae	*Austrochaperina pluvialis*	White-browed Chirper	■	■	5	4260	5969						■
Microhylidae	*Austrochaperina robusta*	Pealing Chirper	■	■	5	1922	5211			R			■
Microhylidae	*Cophixalus aenigma*	Tapping Nursery-Frog	■	■	6						VU		■
Microhylidae	*Cophixalus bombiens*	Windsor Nursery-Frog	■	■	5	356	695			R	NT		■
Microhylidae	*Cophixalus concinnus*	Beautiful Nursery-Frog	■	■	6	1	3			R	CR		■
Microhylidae	*Cophixalus exiguus*	Bloomfield Nursery-Frog	■	■	5	183	318			R	NT		■
Microhylidae	*Cophixalus hosmeri*	Pipping Nursery-Frog	■	■	6	233	298			R	VU		■
Microhylidae	*Cophixalus infacetus*	Buzzing Nursery-Frog	■	■	6	1855	3117			R			■
Microhylidae	*Cophixalus mcdonaldi*	Southern Nursery-Frog		■	5					R	EN		■
Microhylidae	*Cophixalus monticola*	Mountain Top Nursery-Frog	■	■	6	163	209			R	EN		■
Microhylidae	*Cophixalus neglectus*	Tangerine Nursery-Frog	■	■	6	25	37			R	EN		■
Microhylidae	*Cophixalus ornatus*	Common Nursery-Frog	■	■	5	2958	6532						■
Microhylidae	*Cophixalus saxatilis*	Boulder Nursery-Frog	■	■	2					R	VU		■
Ranidae	*Rana daemeli*	Australian Bullfrog	■		3	3507	5900						
Bufonidae	*Bufo marinus*	Cane Toad			3				■				

APPENDIX B

SPECIES RICHNESS MAPS AND SPECIES DISTRIBUTION MAPS

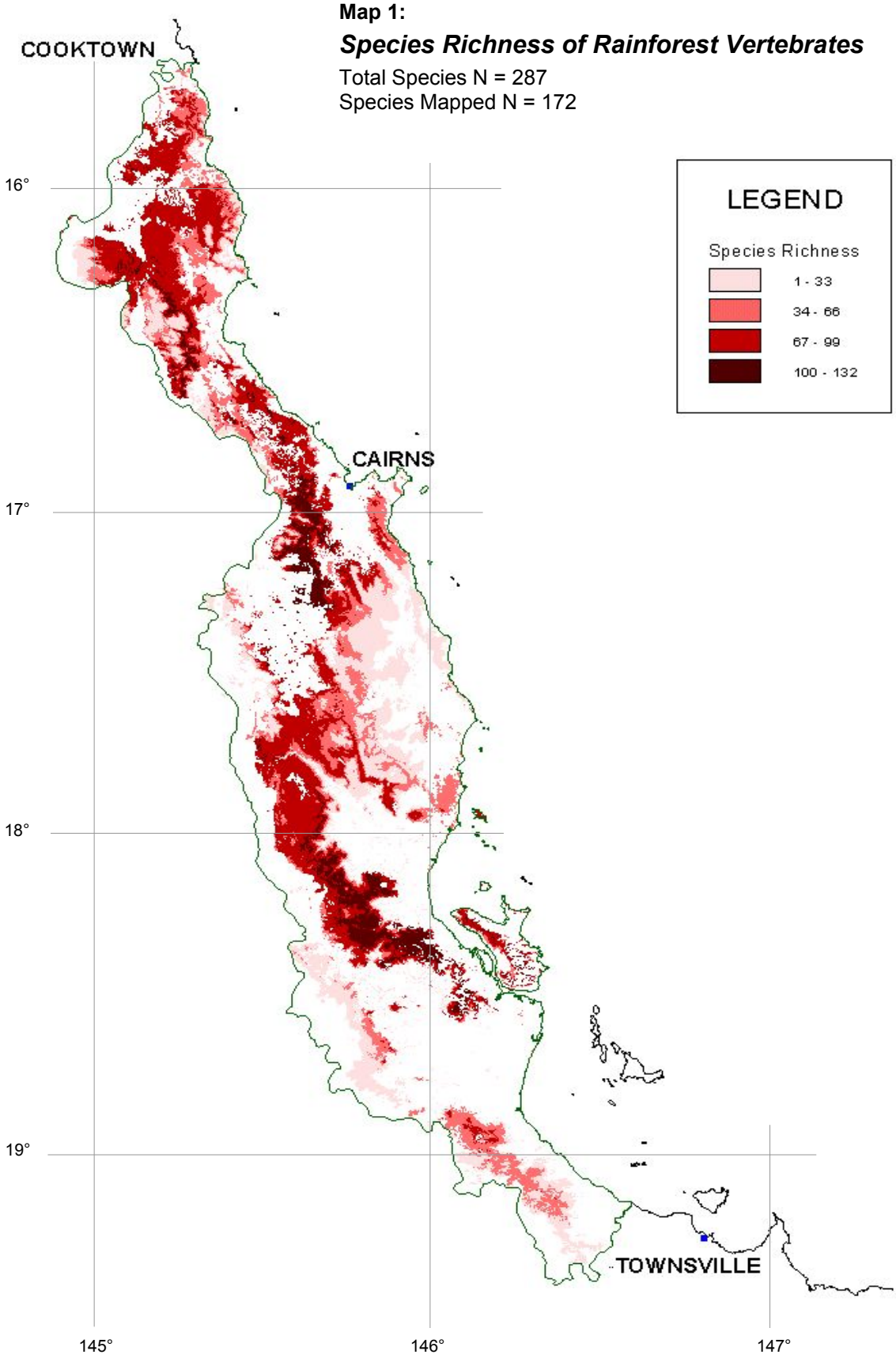
Key to Species Distribution Maps (Maps 13-192)



Map 1:

Species Richness of Rainforest Vertebrates

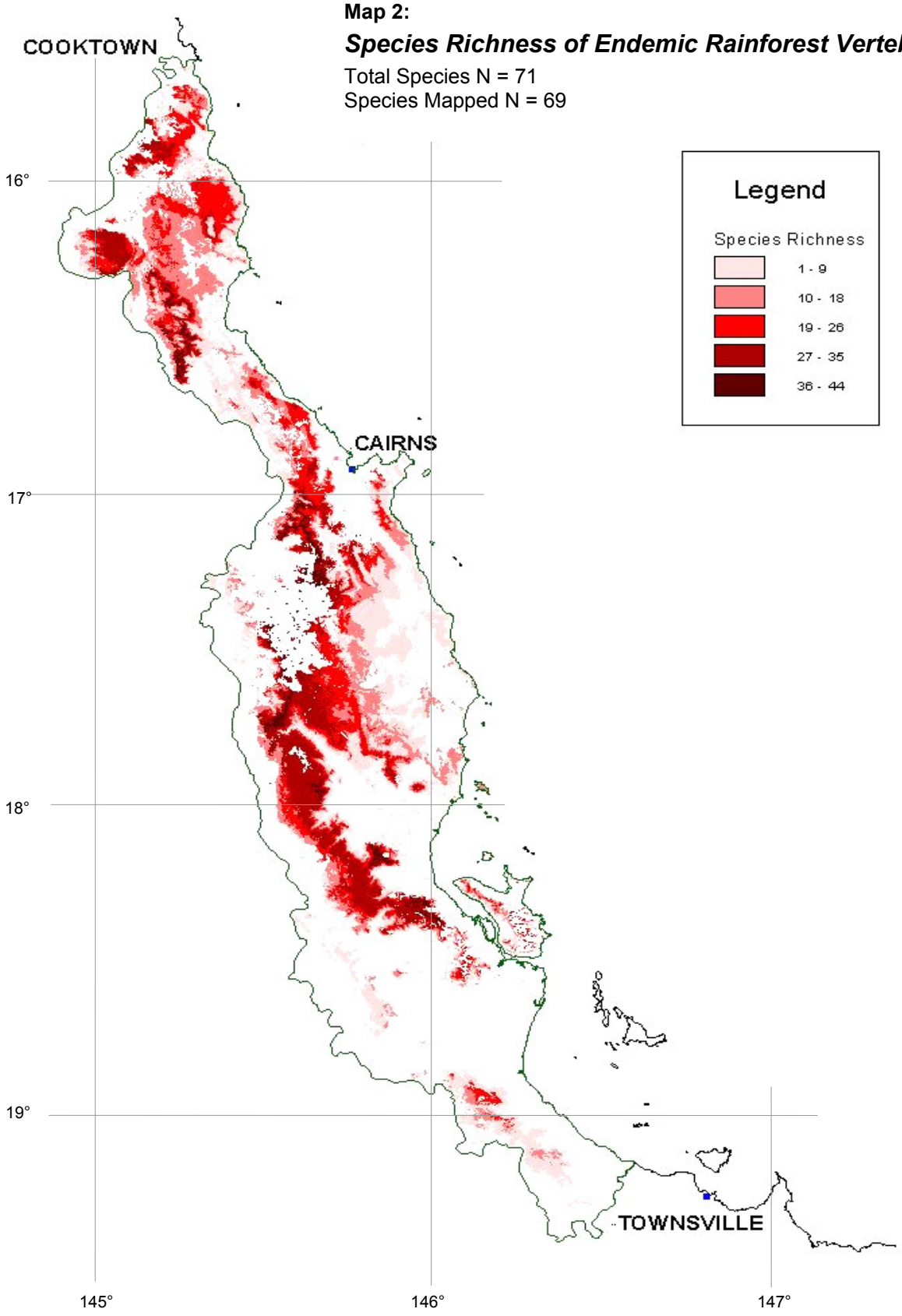
Total Species N = 287
Species Mapped N = 172



Map 2:

Species Richness of Endemic Rainforest Vertebrates

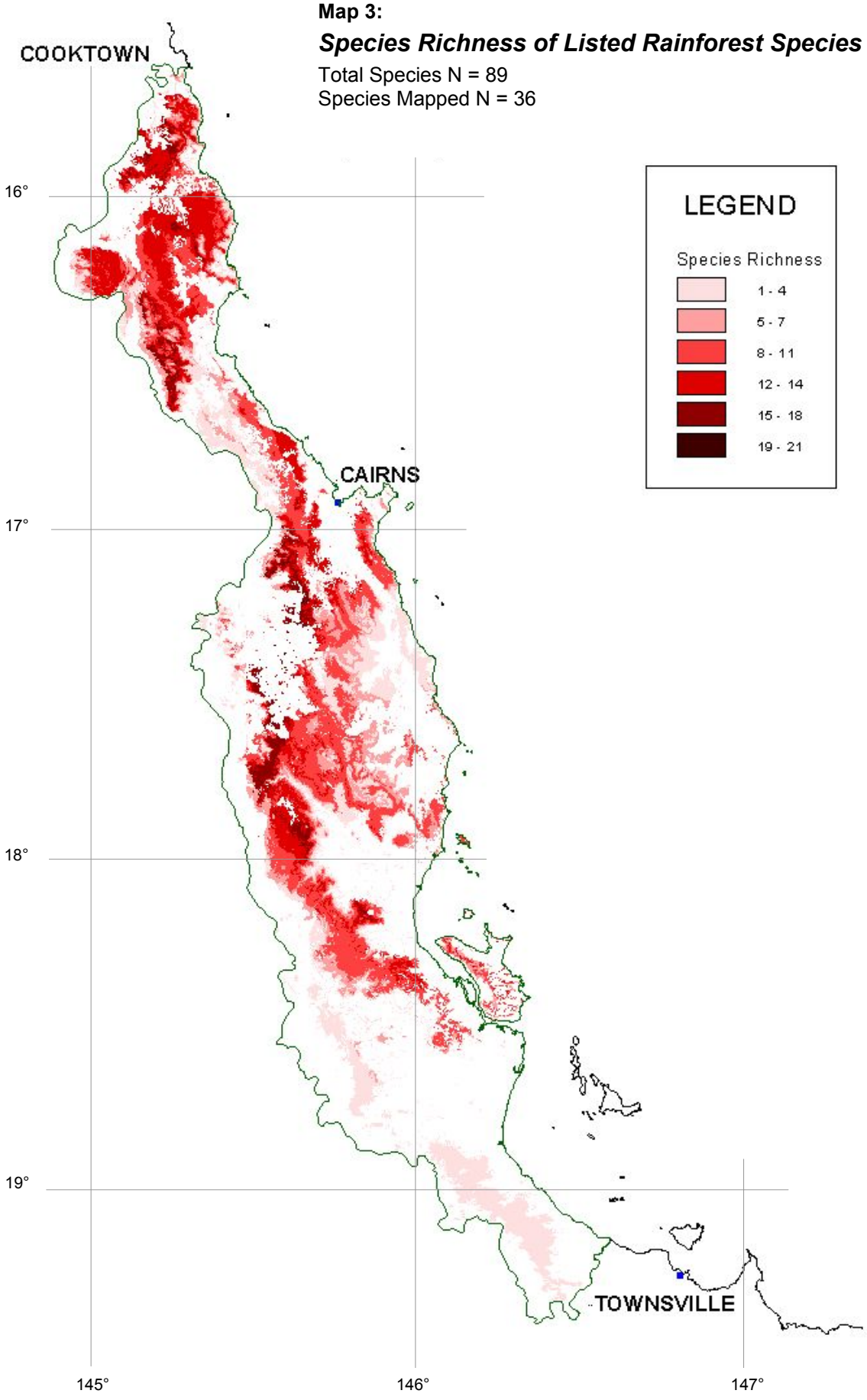
Total Species N = 71
Species Mapped N = 69



Map 3:

Species Richness of Listed Rainforest Species

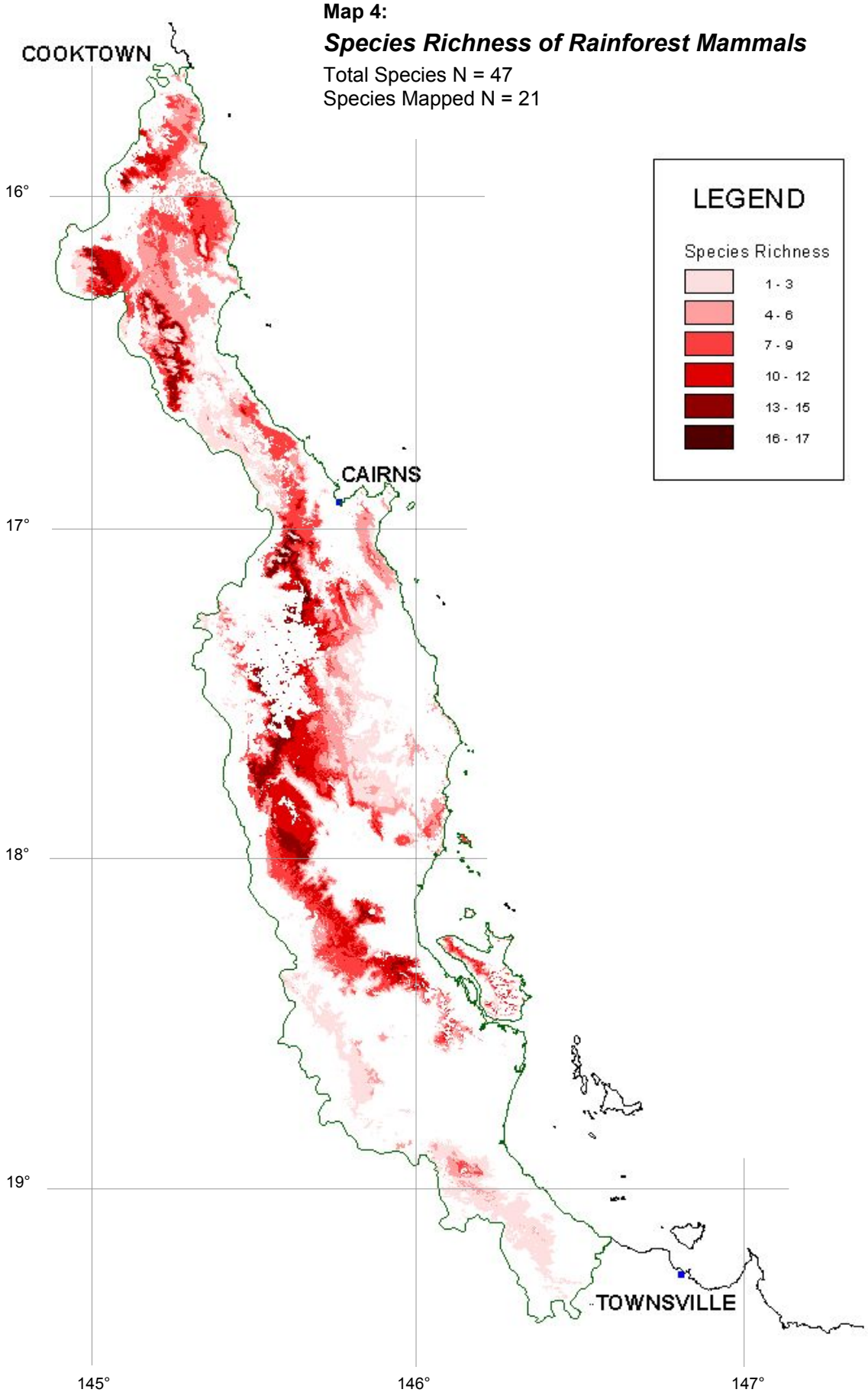
Total Species N = 89
Species Mapped N = 36



Map 4:

Species Richness of Rainforest Mammals

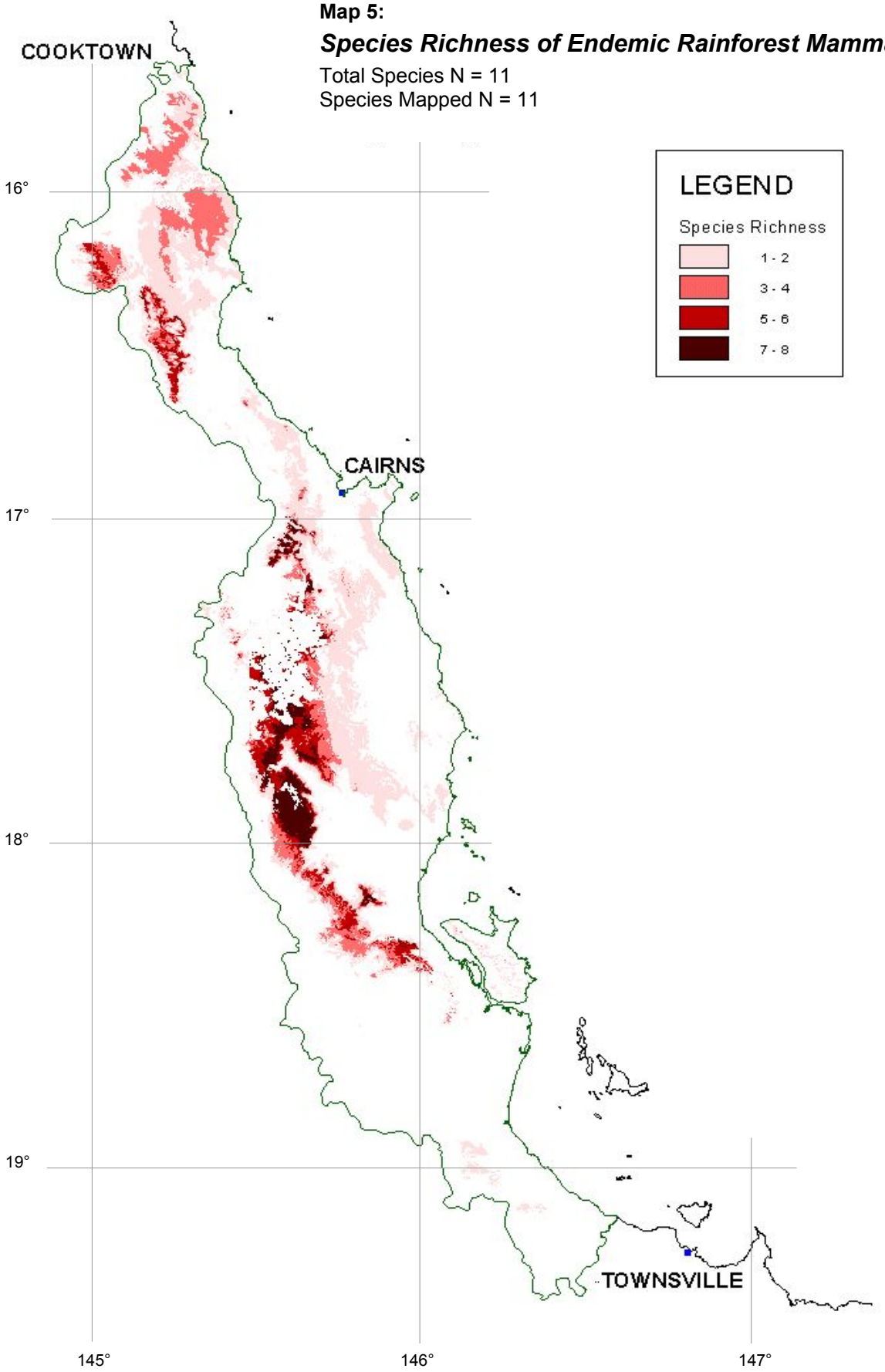
Total Species N = 47
Species Mapped N = 21



Map 5:

Species Richness of Endemic Rainforest Mammals

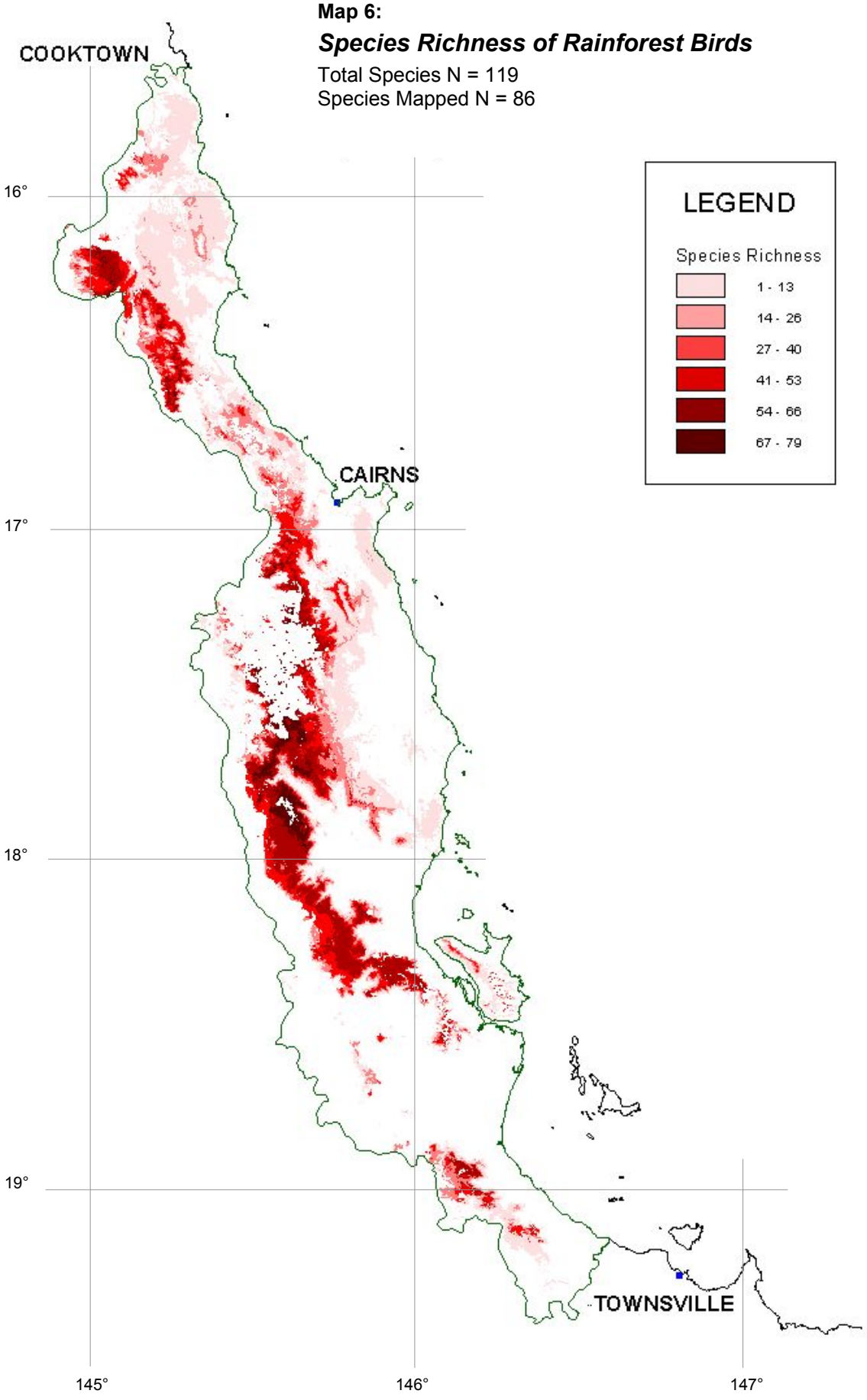
Total Species N = 11
Species Mapped N = 11



Map 6:

Species Richness of Rainforest Birds

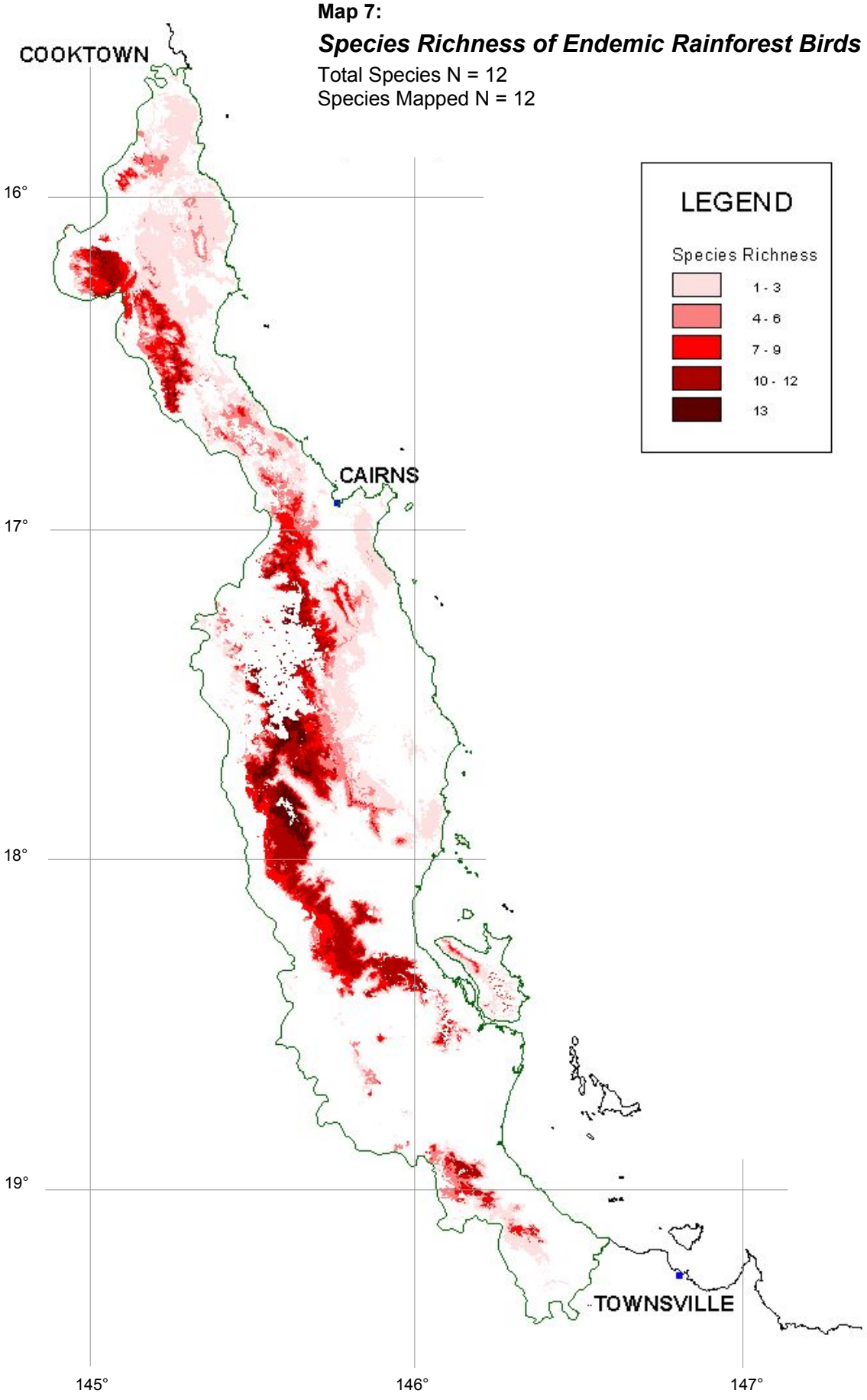
Total Species N = 119
Species Mapped N = 86



Map 7:

Species Richness of Endemic Rainforest Birds

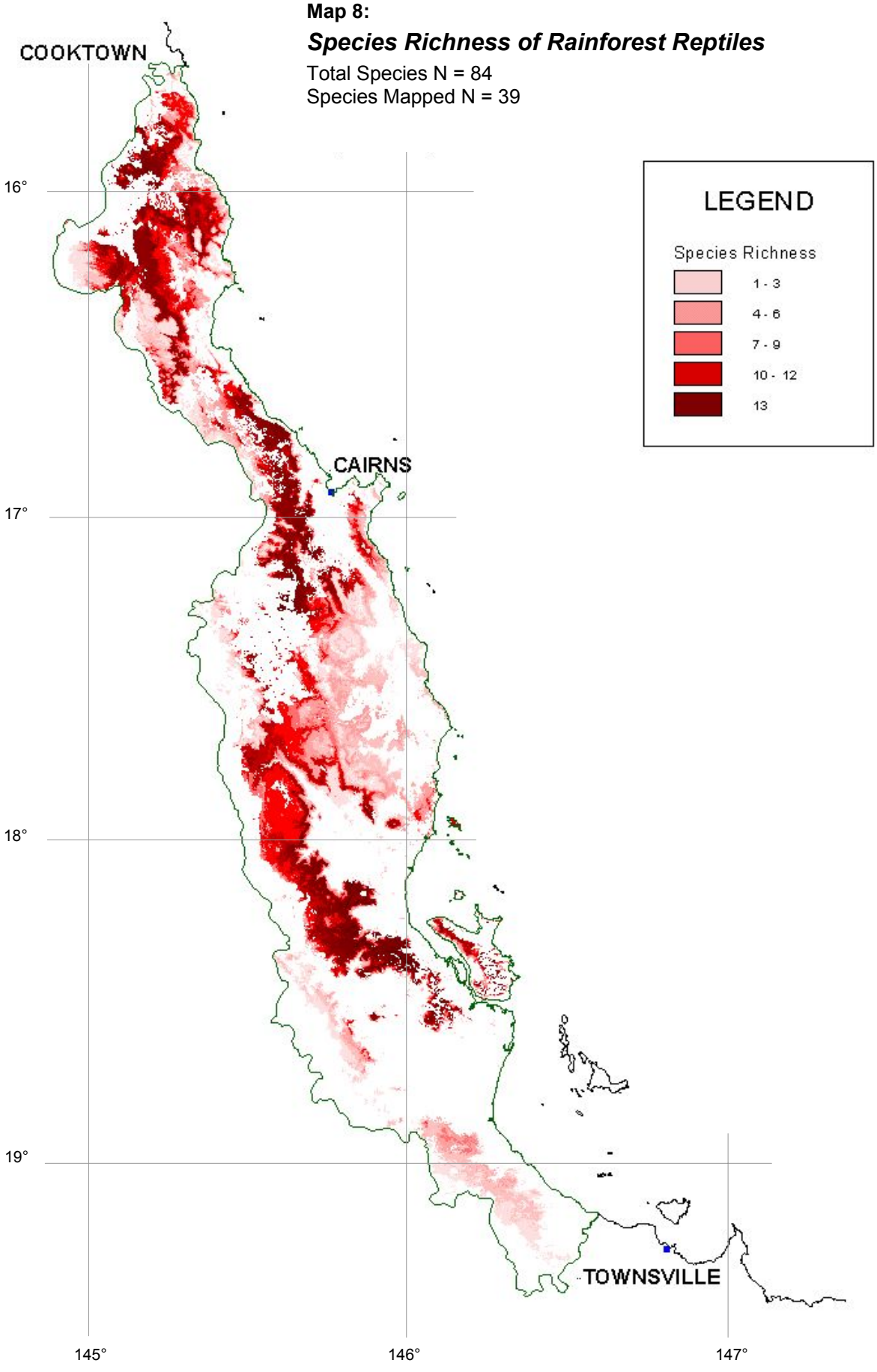
Total Species N = 12
Species Mapped N = 12



Map 8:

Species Richness of Rainforest Reptiles

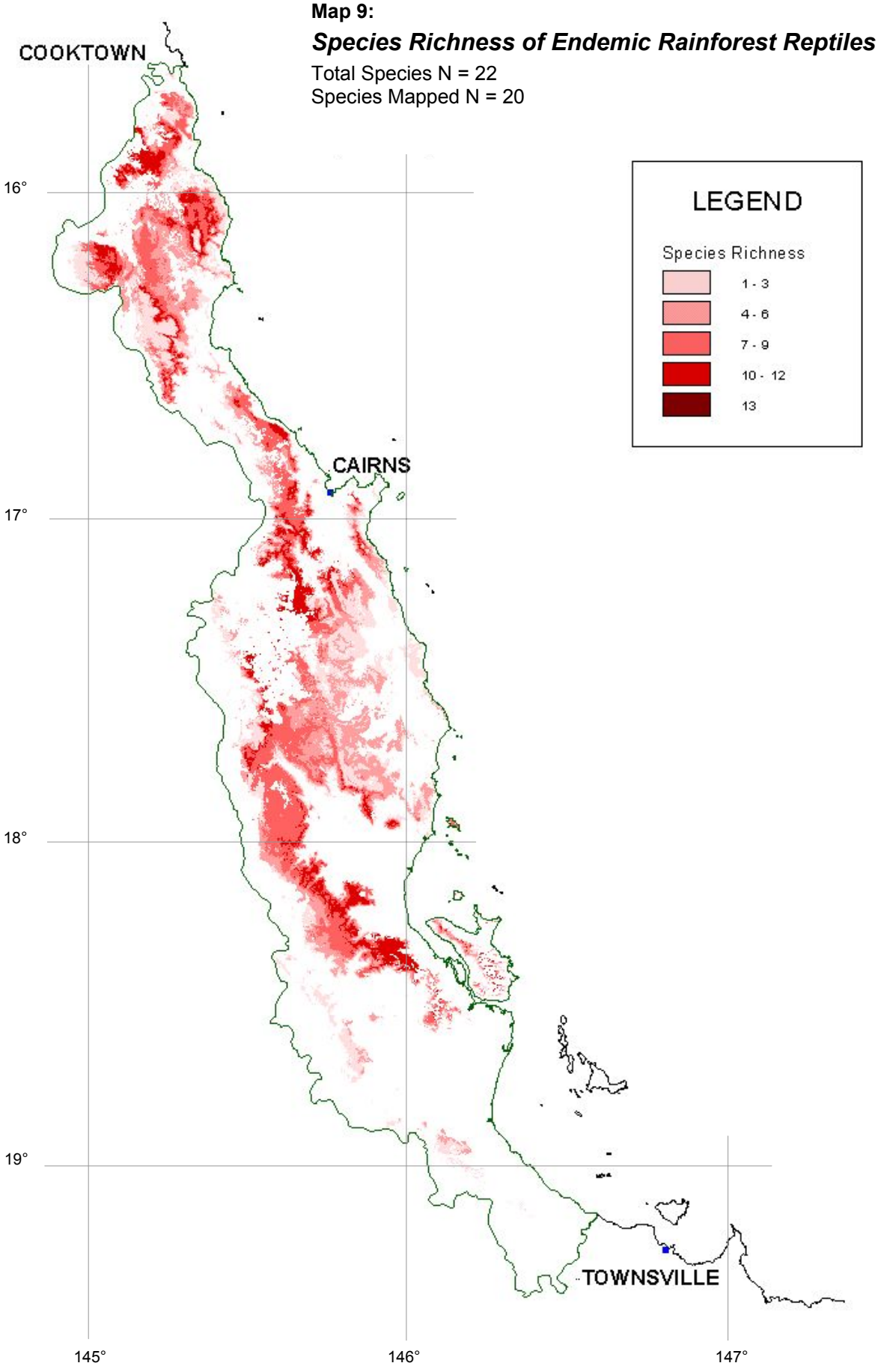
Total Species N = 84
Species Mapped N = 39



Map 9:

Species Richness of Endemic Rainforest Reptiles

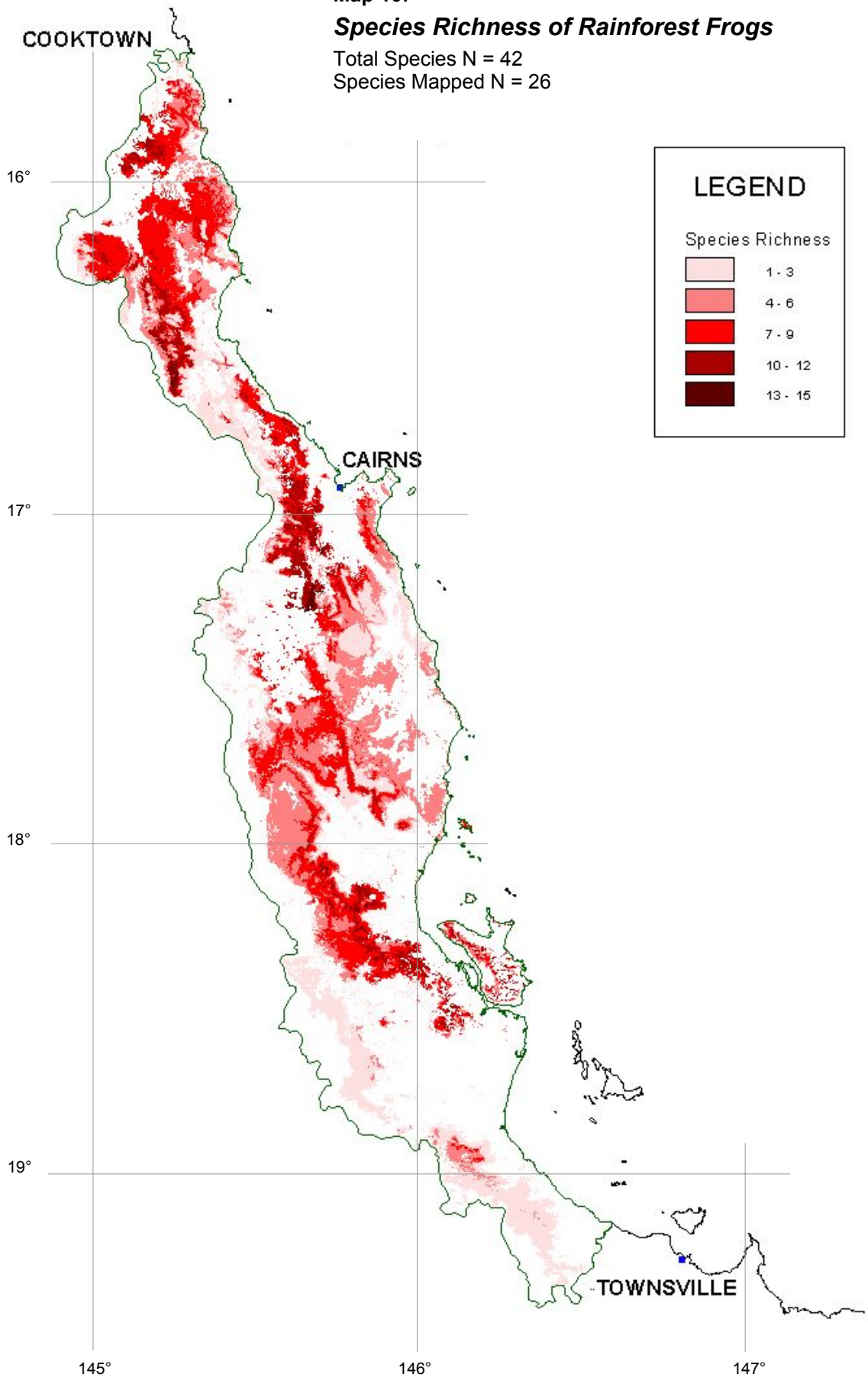
Total Species N = 22
Species Mapped N = 20



Map 10:

Species Richness of Rainforest Frogs

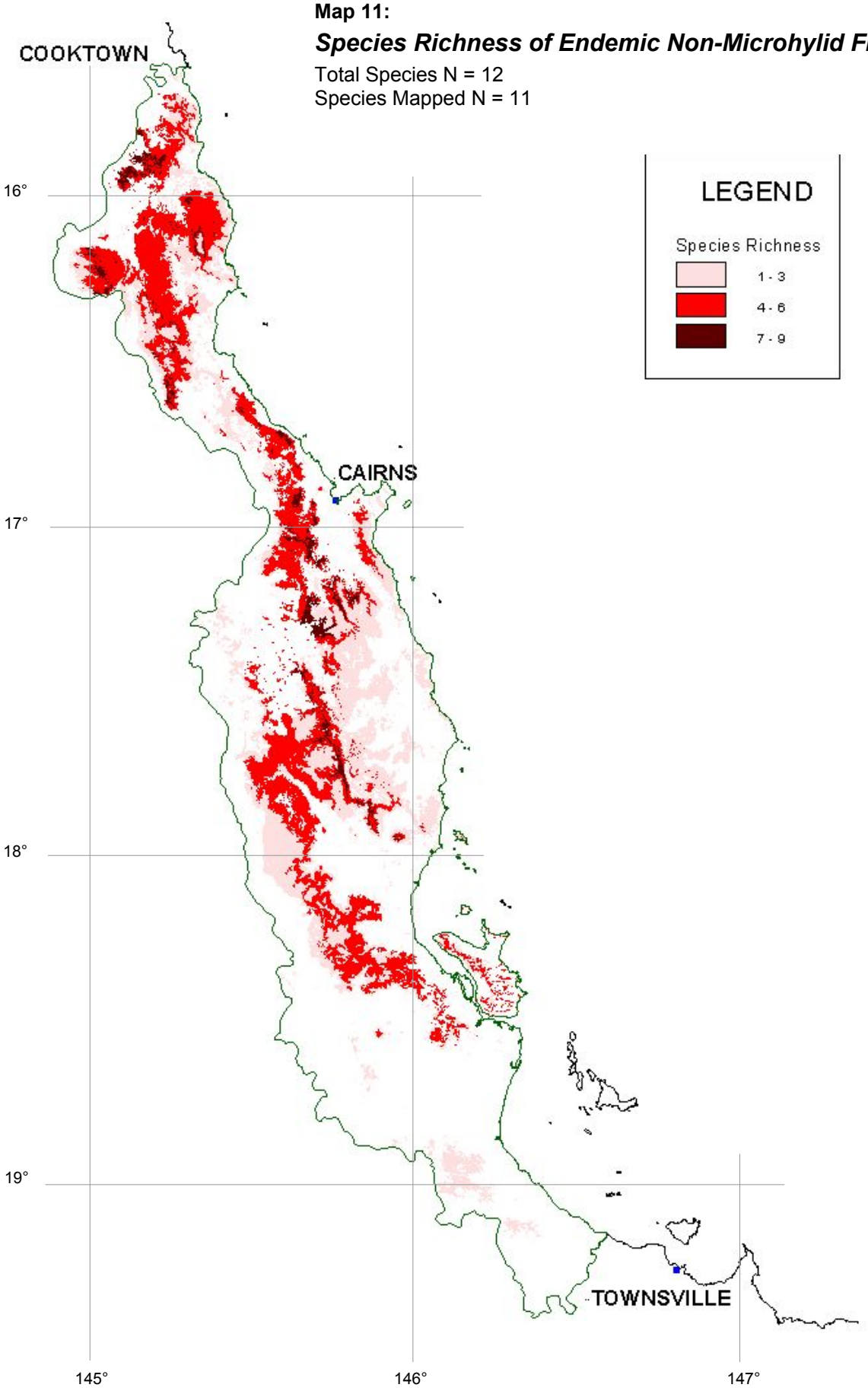
Total Species N = 42
Species Mapped N = 26



Map 11:

Species Richness of Endemic Non-Microhylid Frogs

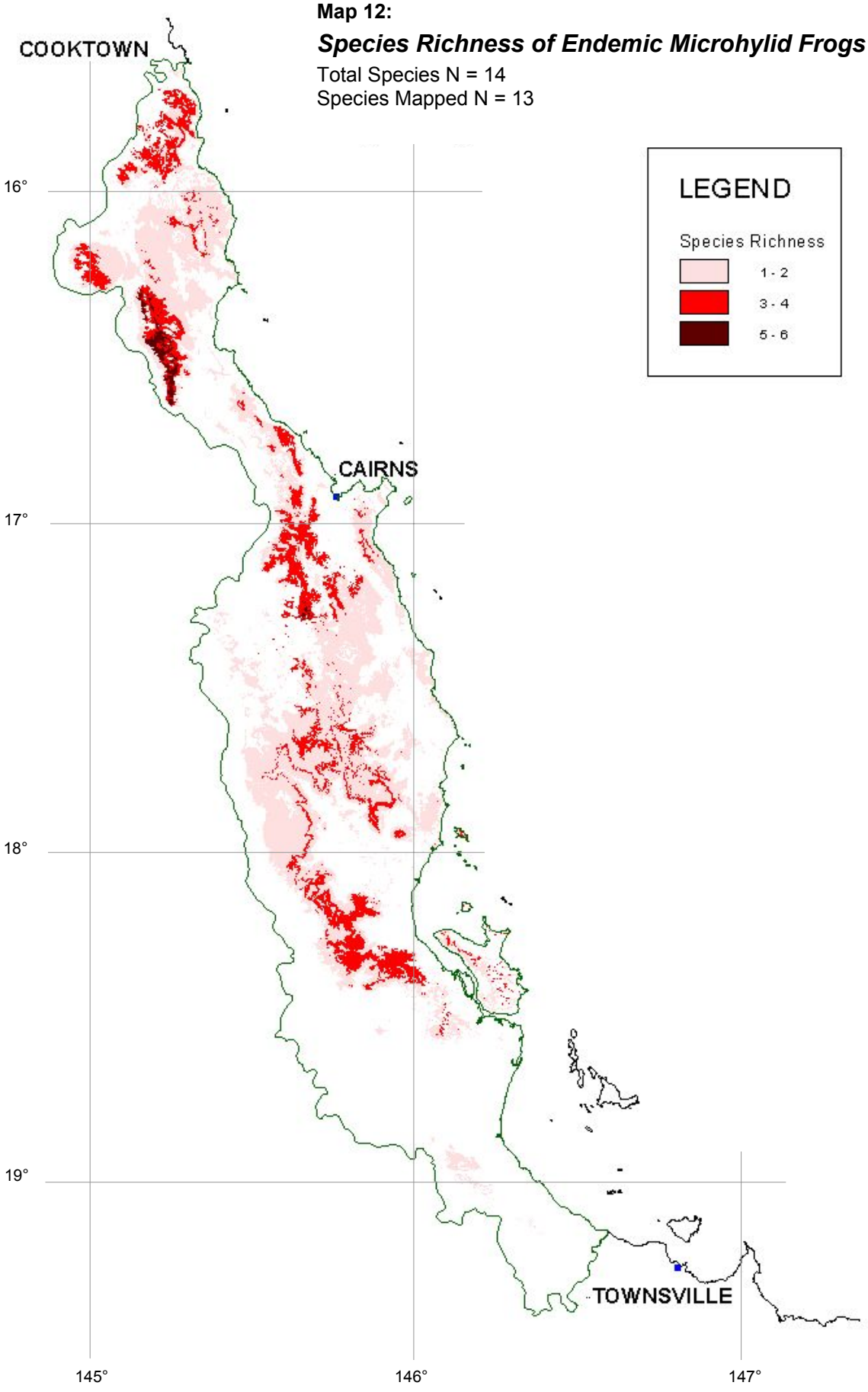
Total Species N = 12
Species Mapped N = 11



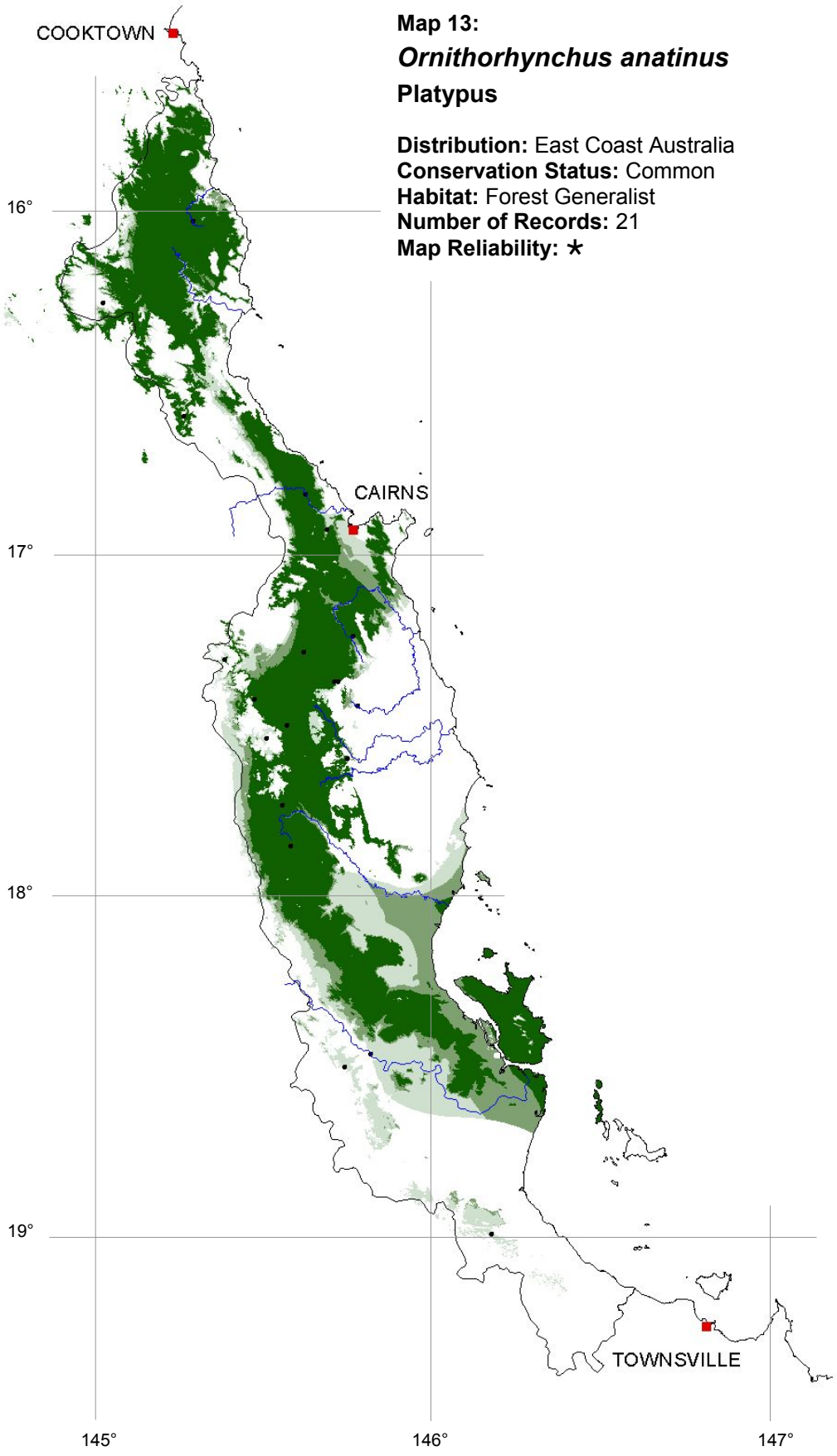
Map 12:

Species Richness of Endemic Microhylid Frogs

Total Species N = 14
Species Mapped N = 13



Monotremes



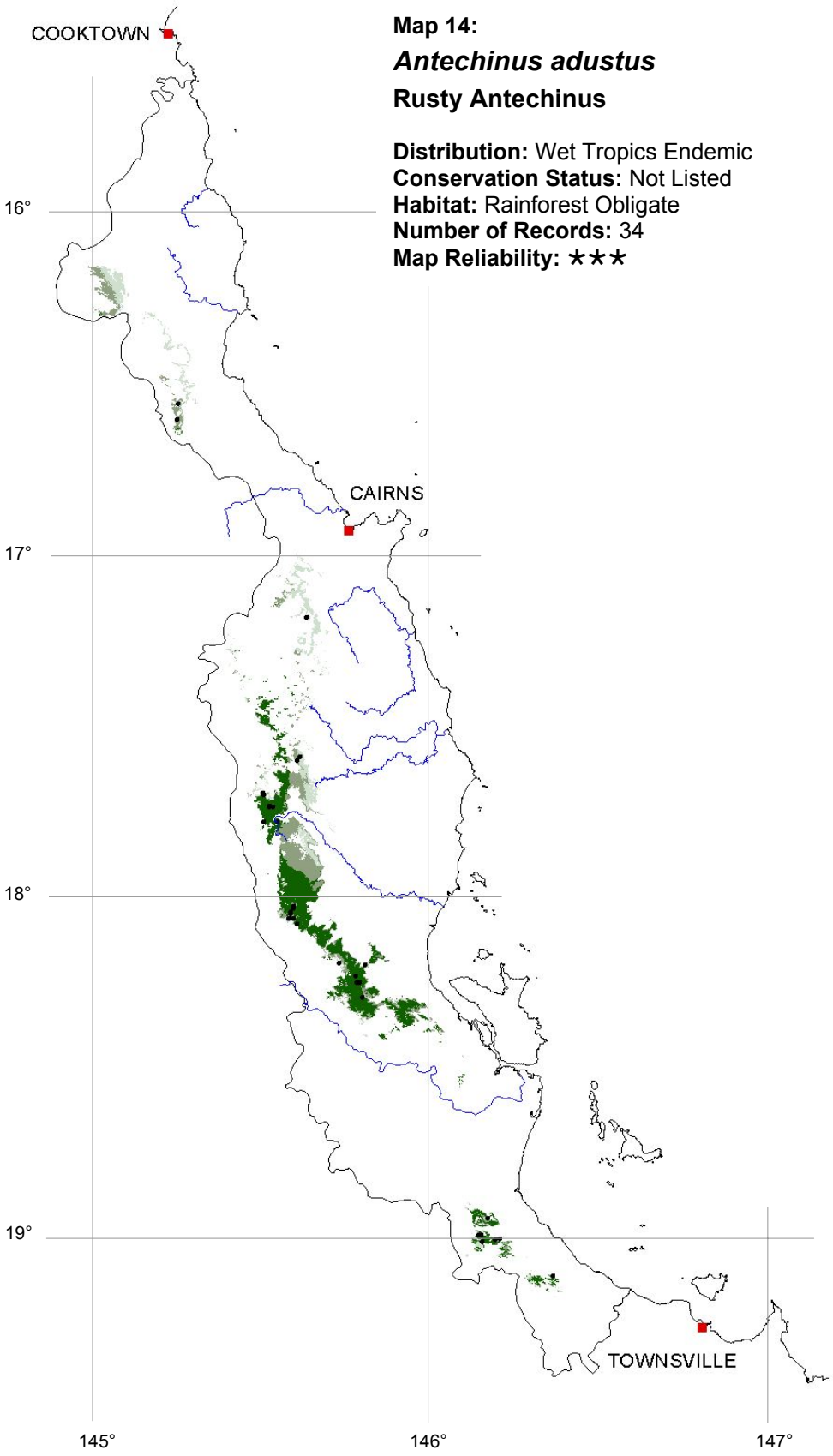
Map 13:

Ornithorhynchus anatinus

Platypus

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 21
Map Reliability: ★

Mammals

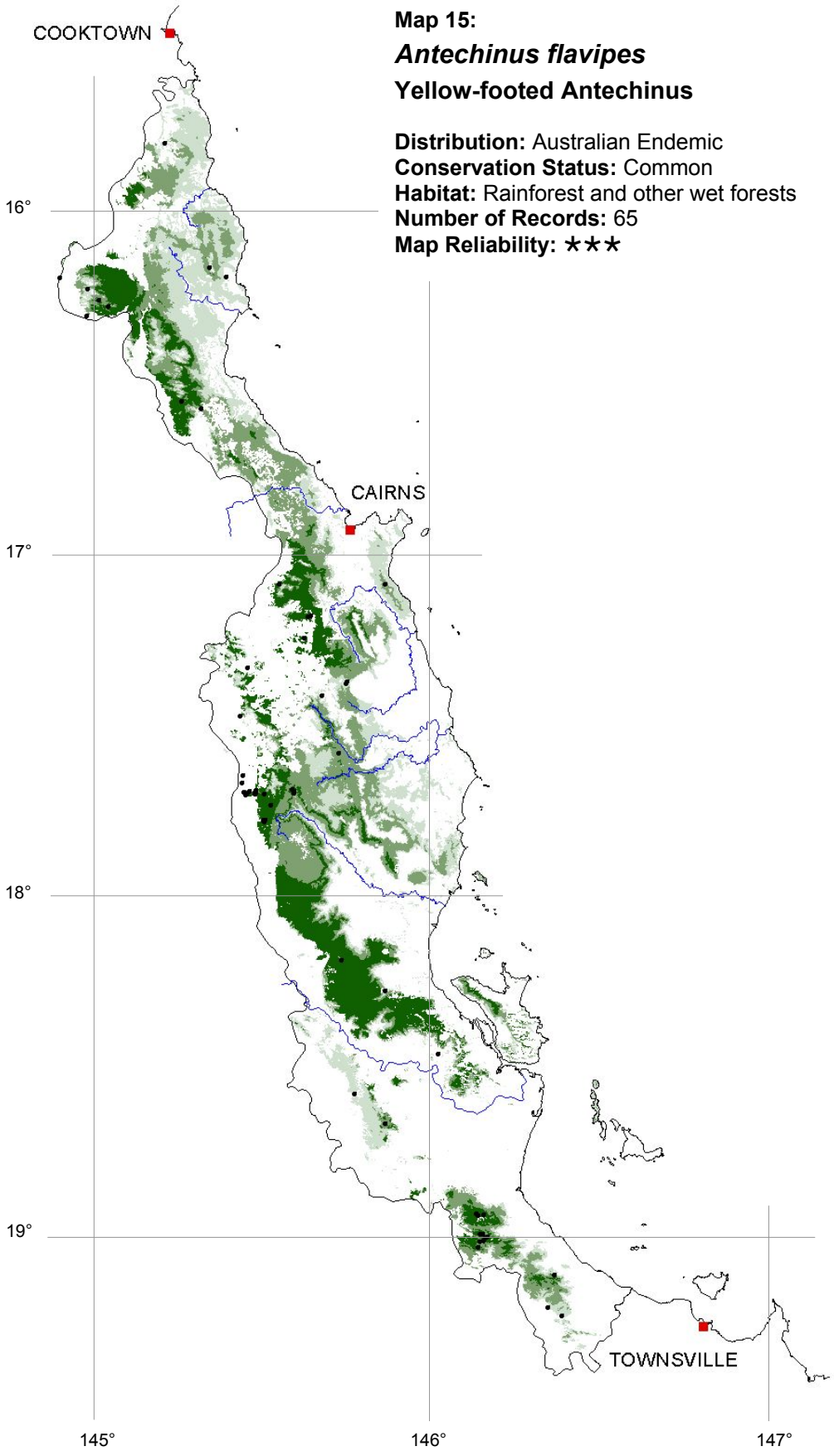


Map 14:

Antechinus adustus

Rusty Antechinus

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 34
Map Reliability: ★★★

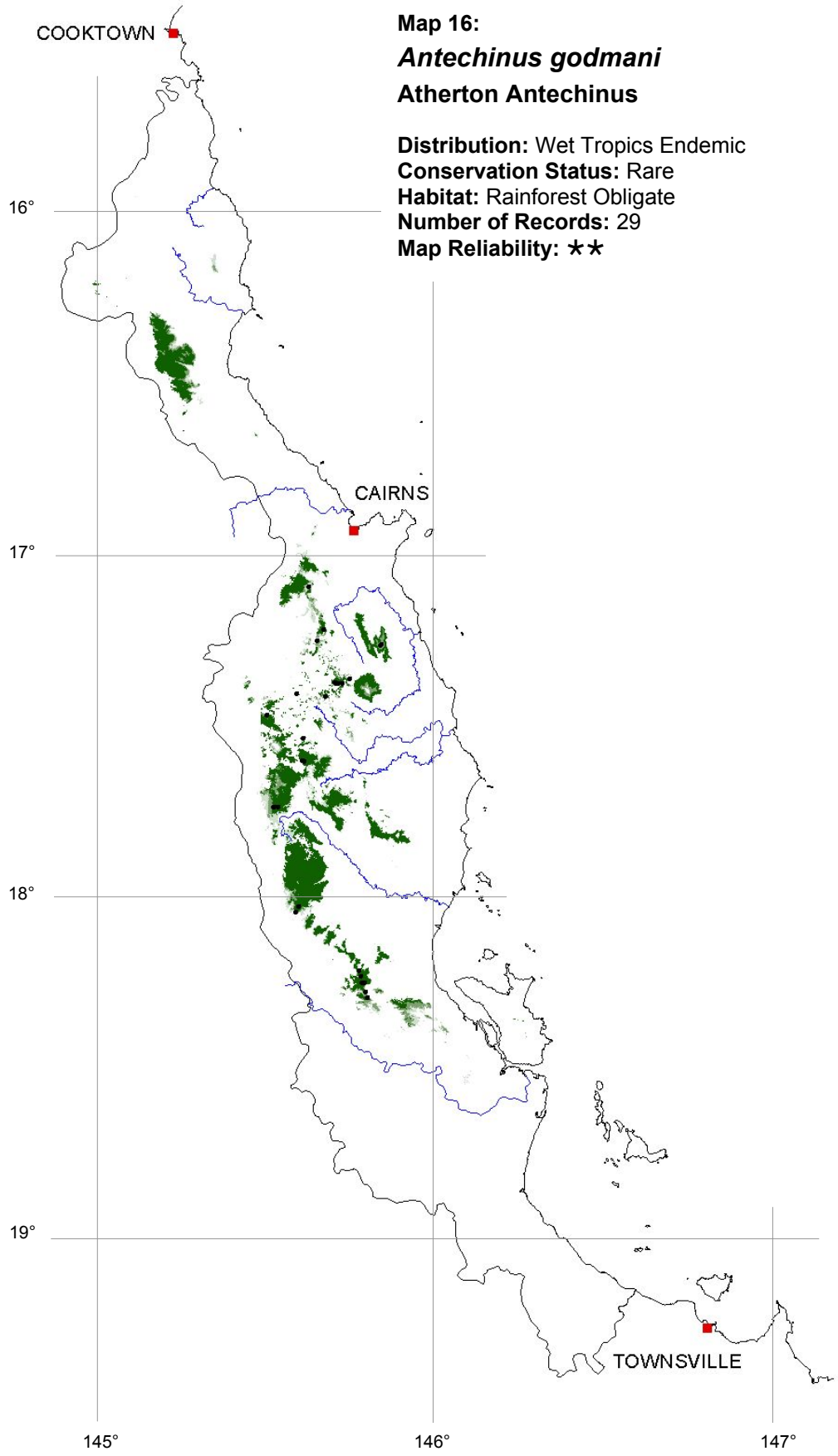


Map 15:

Antechinus flavipes

Yellow-footed Antechinus

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 65
Map Reliability: ★★★

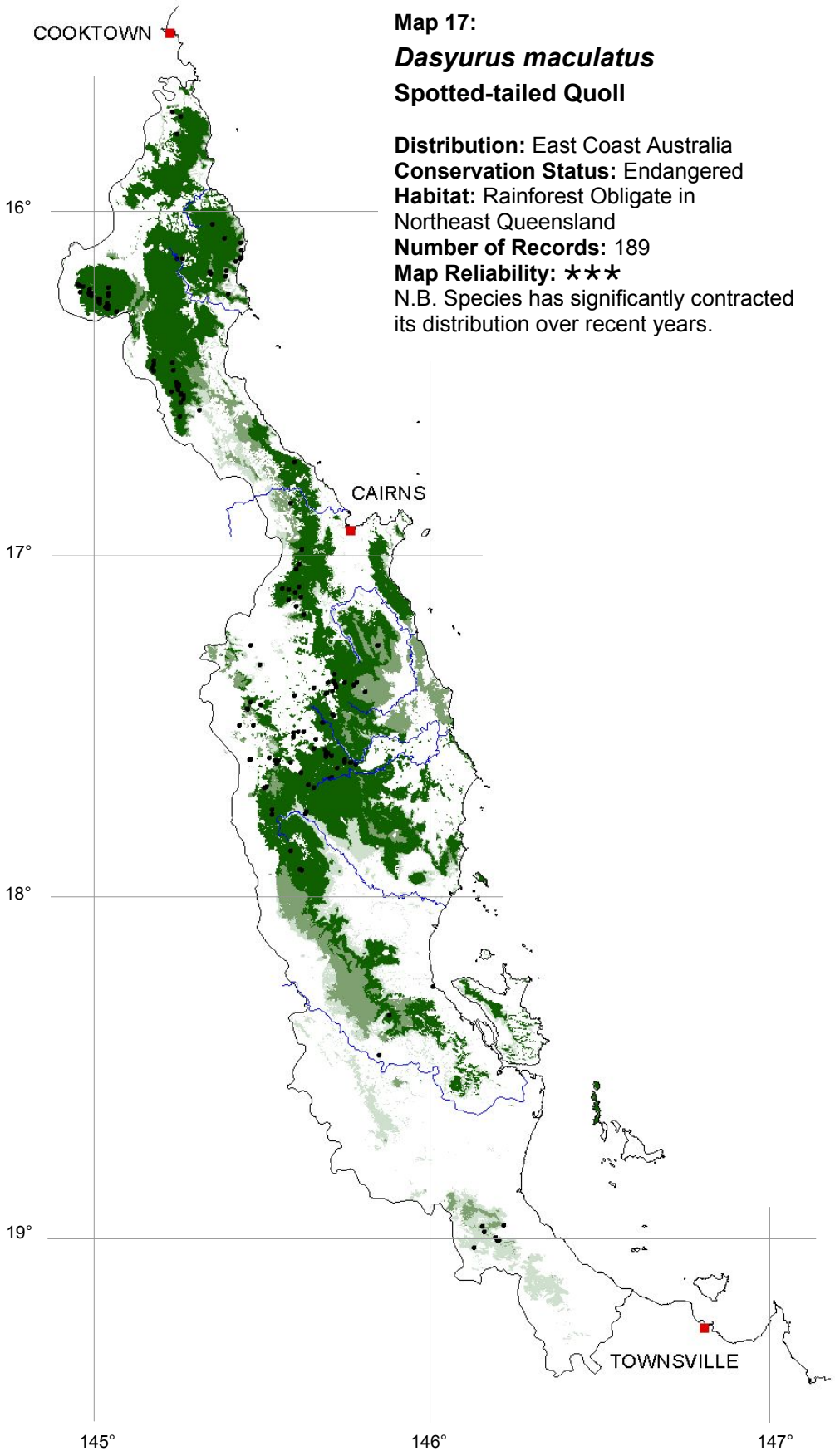


Map 16:

Antechinus godmani

Atherton Antechinus

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 29
Map Reliability: ★★

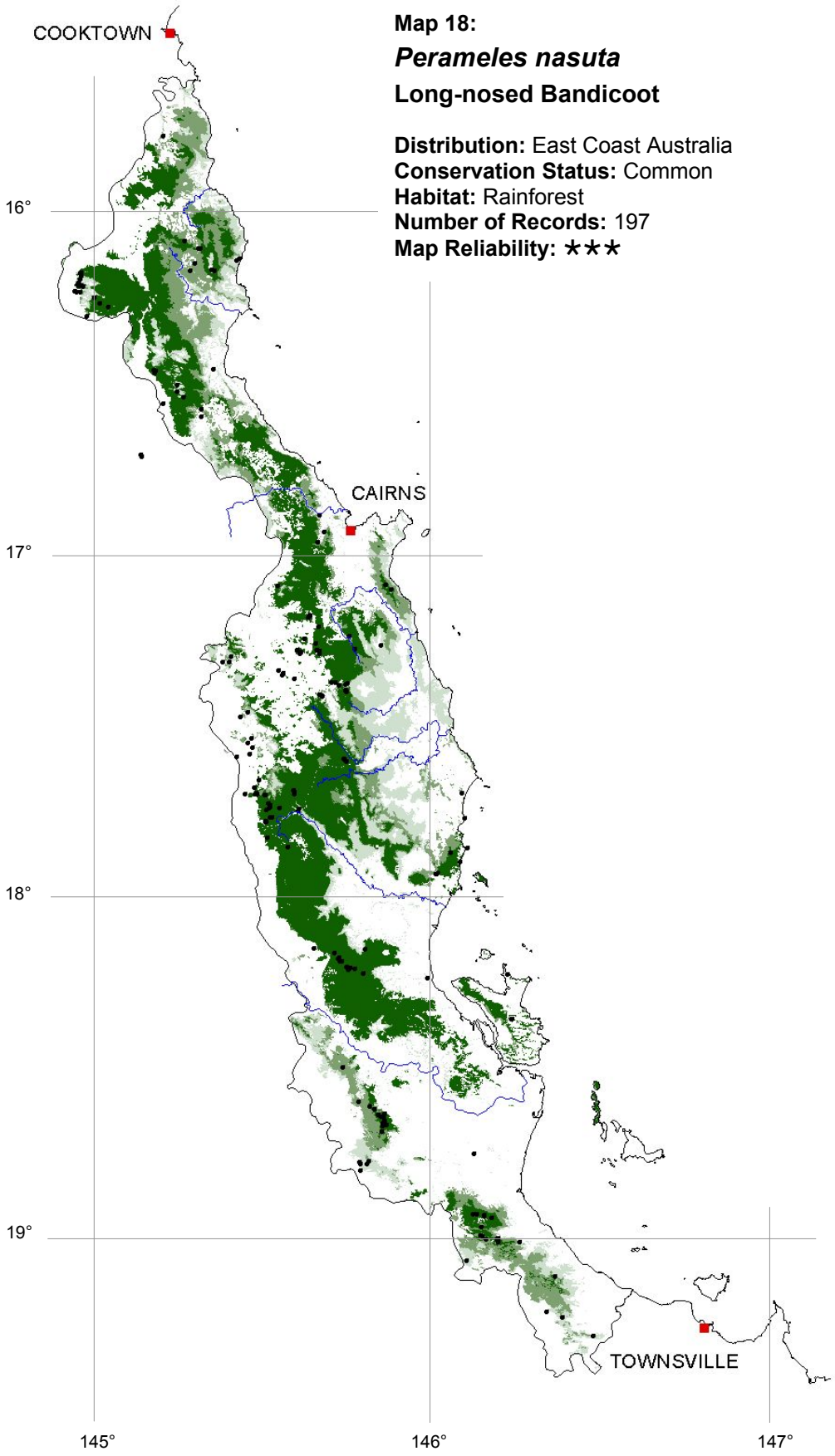


Map 17:

Dasyurus maculatus

Spotted-tailed Quoll

Distribution: East Coast Australia
Conservation Status: Endangered
Habitat: Rainforest Obligate in Northeast Queensland
Number of Records: 189
Map Reliability: ★★★
N.B. Species has significantly contracted its distribution over recent years.

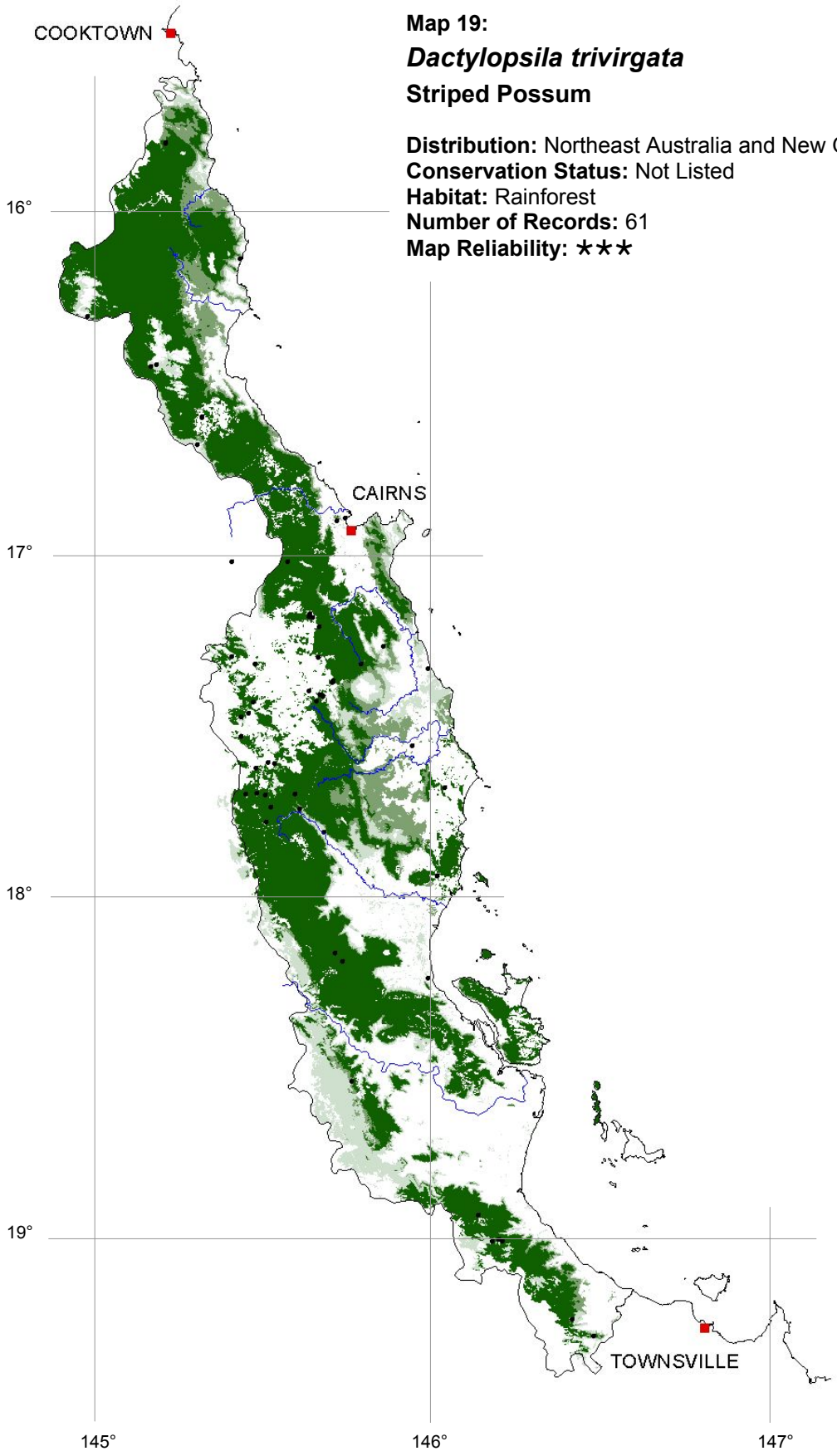


Map 18:

Perameles nasuta

Long-nosed Bandicoot

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 197
Map Reliability: ★★★

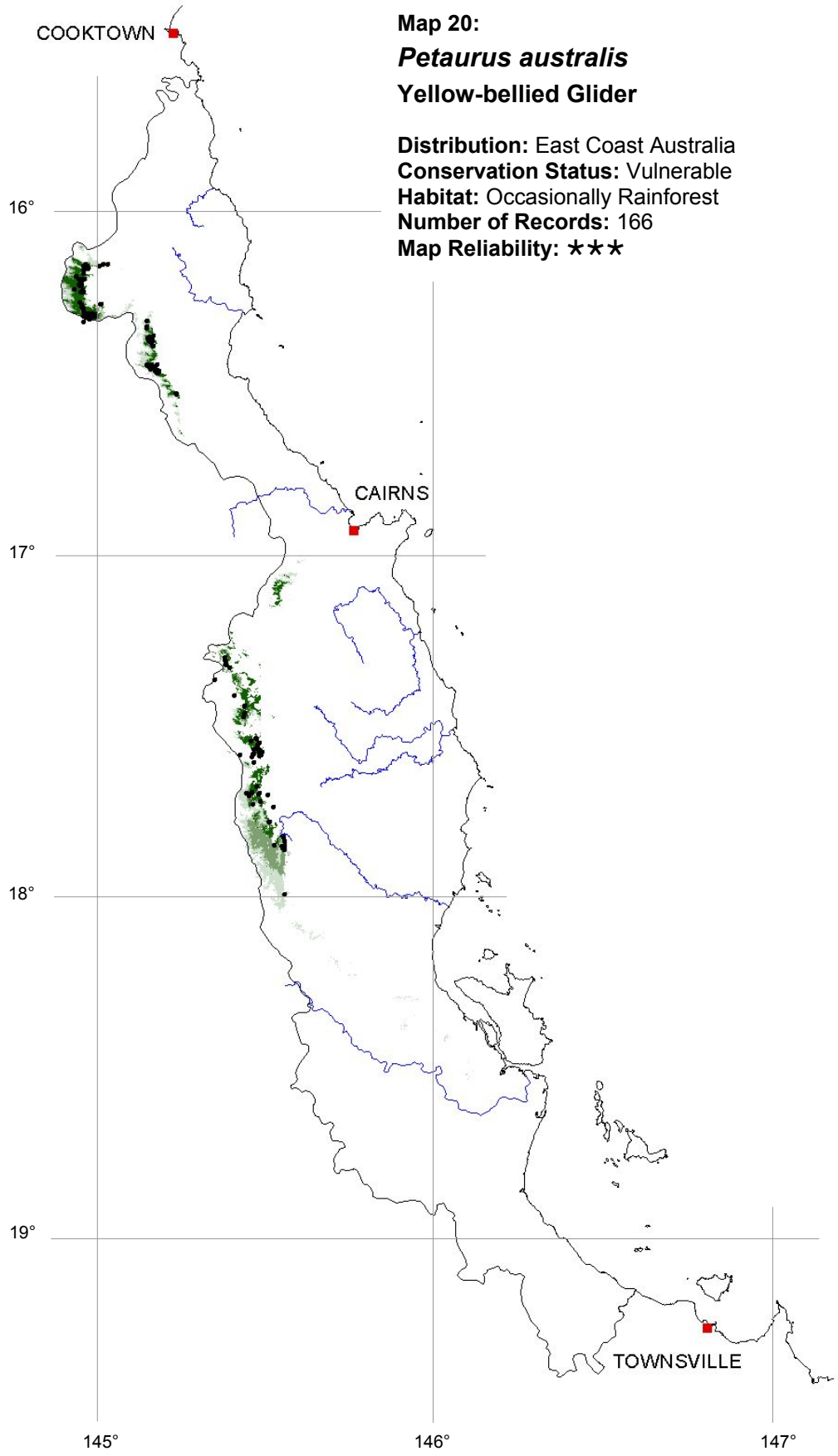


Map 19:

Dactylopsila trivirgata

Striped Possum

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 61
Map Reliability: ★★★

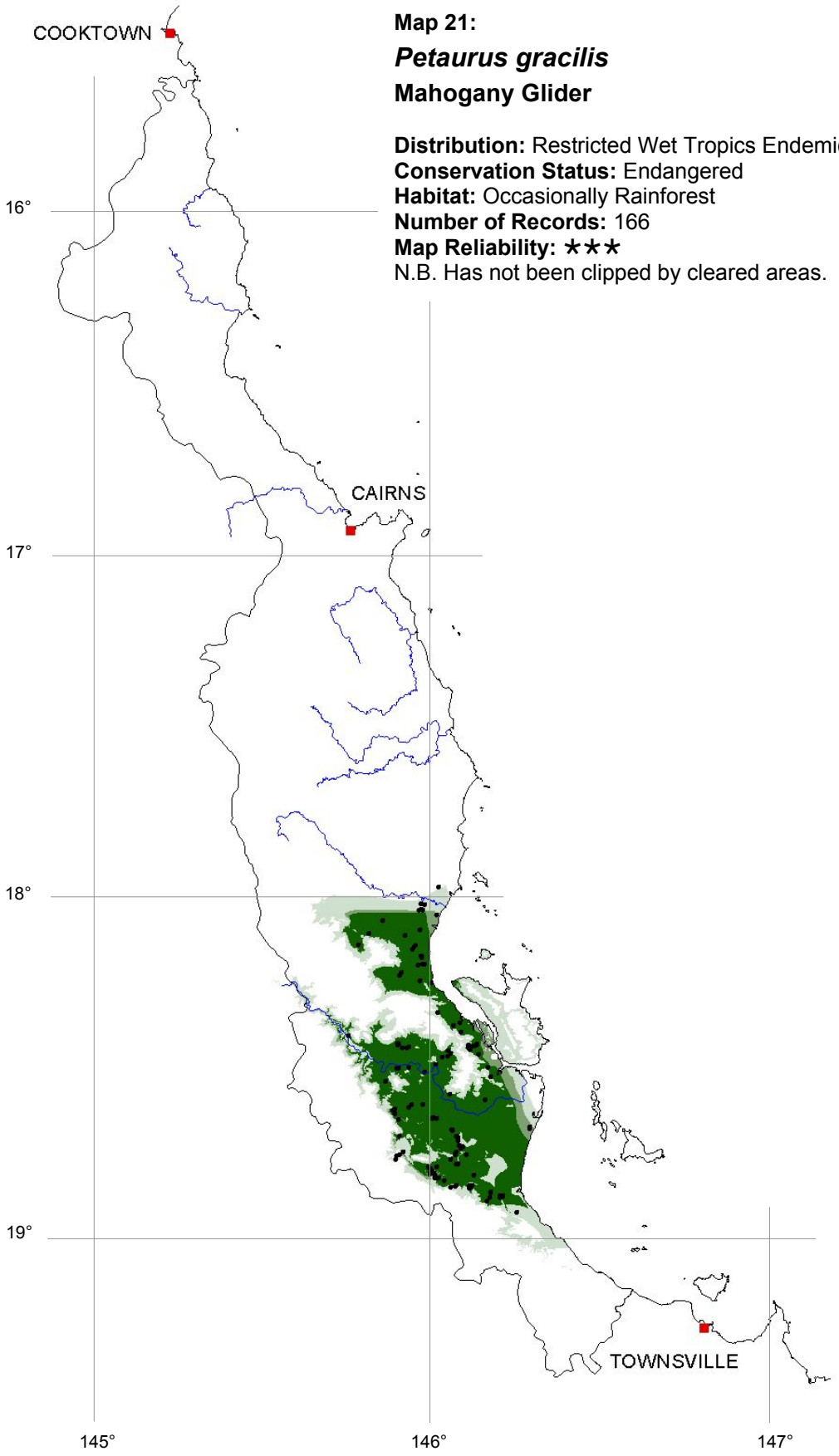


Map 20:

Petaurus australis

Yellow-bellied Glider

Distribution: East Coast Australia
Conservation Status: Vulnerable
Habitat: Occasionally Rainforest
Number of Records: 166
Map Reliability: ★★★

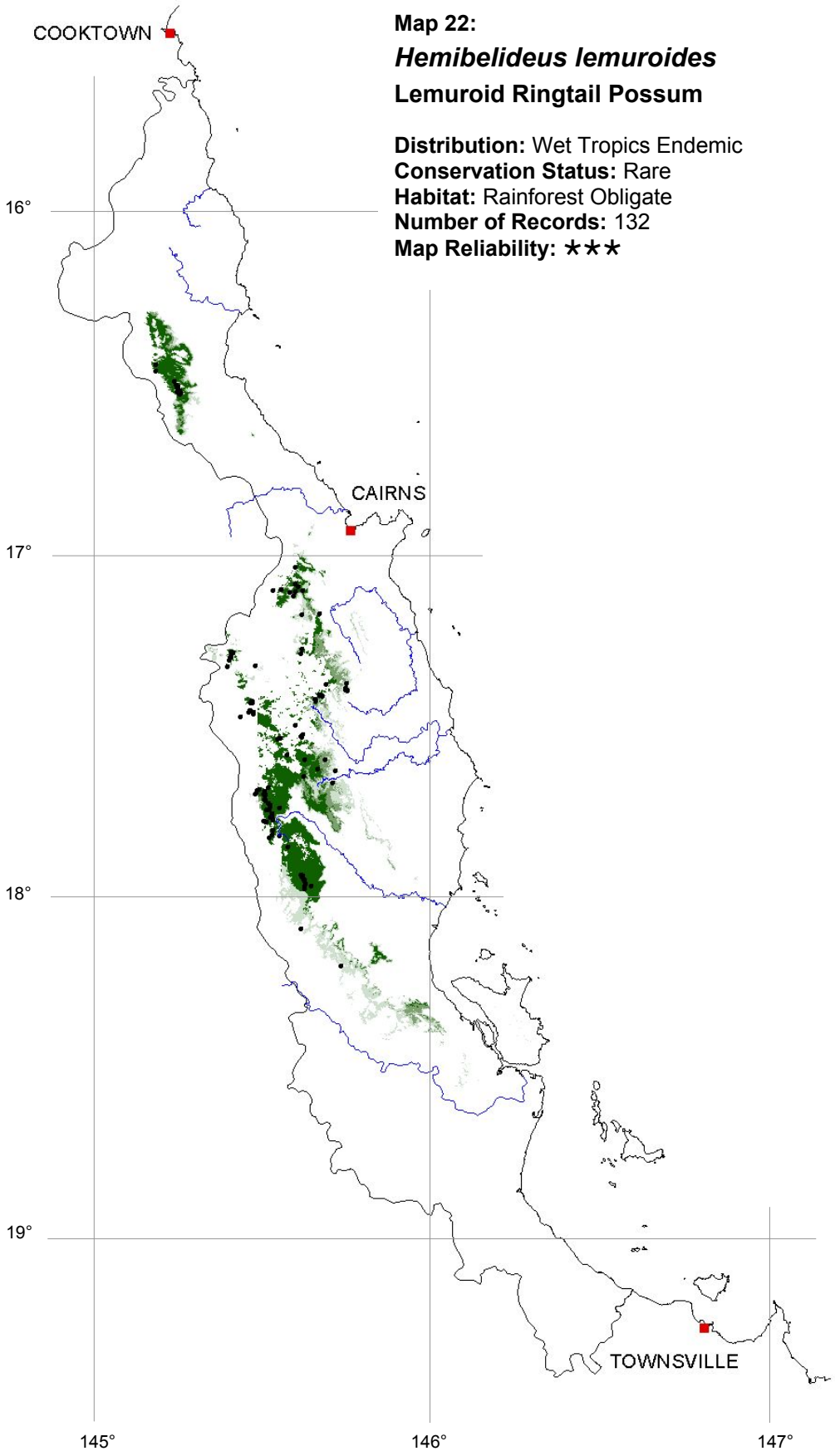


Map 21:

Petaurus gracilis

Mahogany Glider

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Occasionally Rainforest
Number of Records: 166
Map Reliability: ★★★
N.B. Has not been clipped by cleared areas.

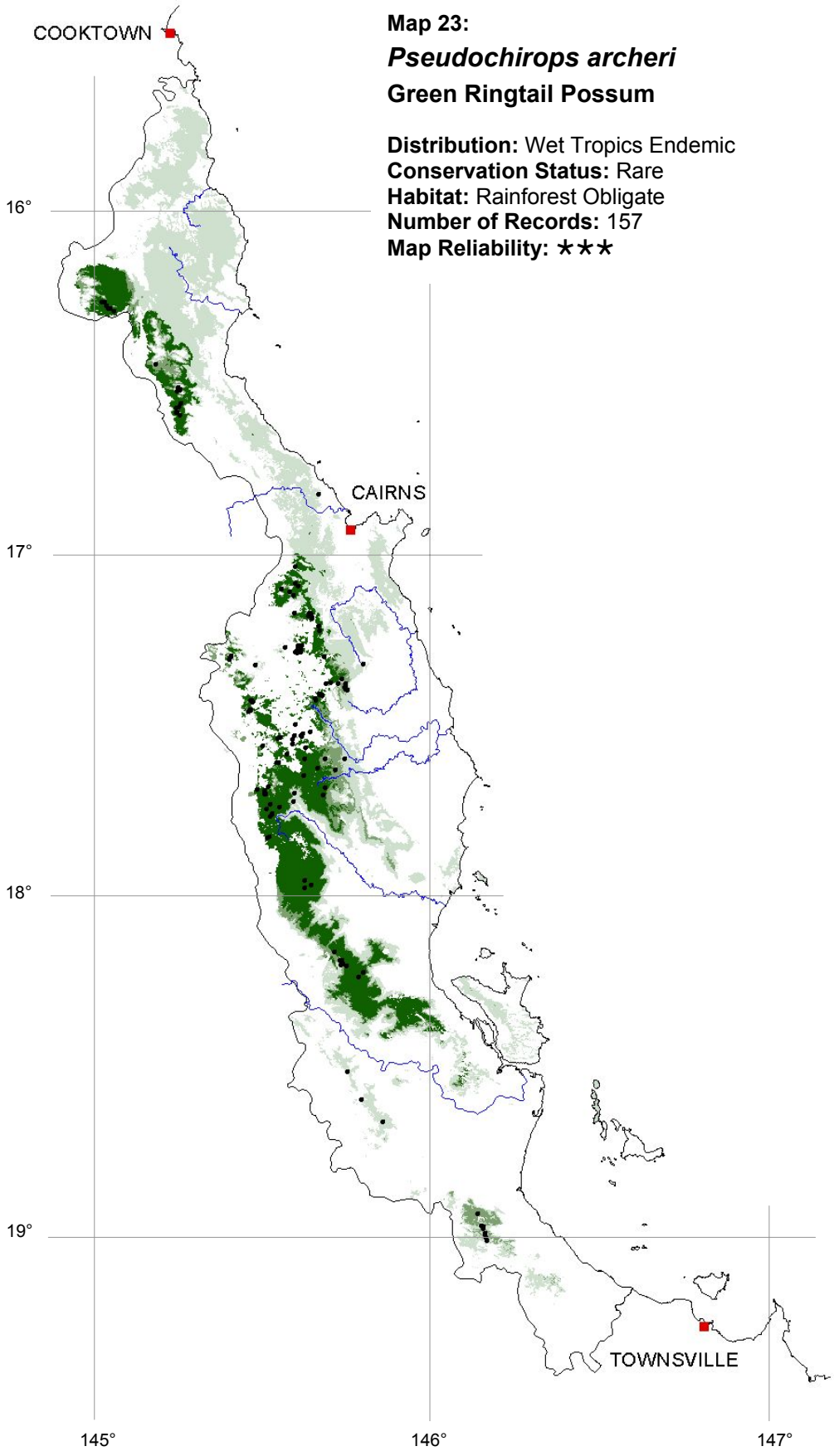


Map 22:

Hemibelideus lemuroides

Lemuroid Ringtail Possum

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 132
Map Reliability: ★★★

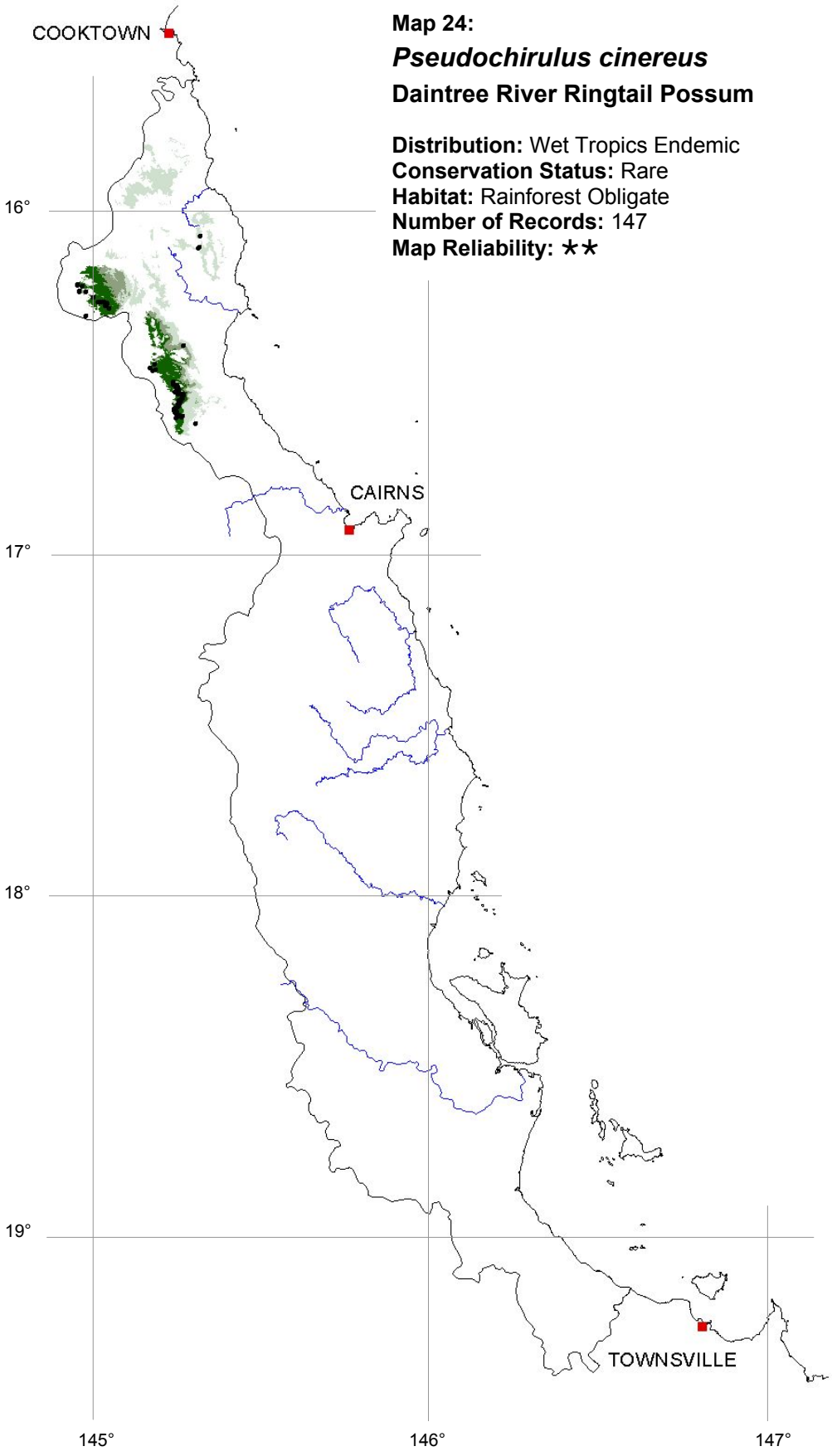


Map 23:

Pseudochirops archeri

Green Ringtail Possum

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 157
Map Reliability: ★★★

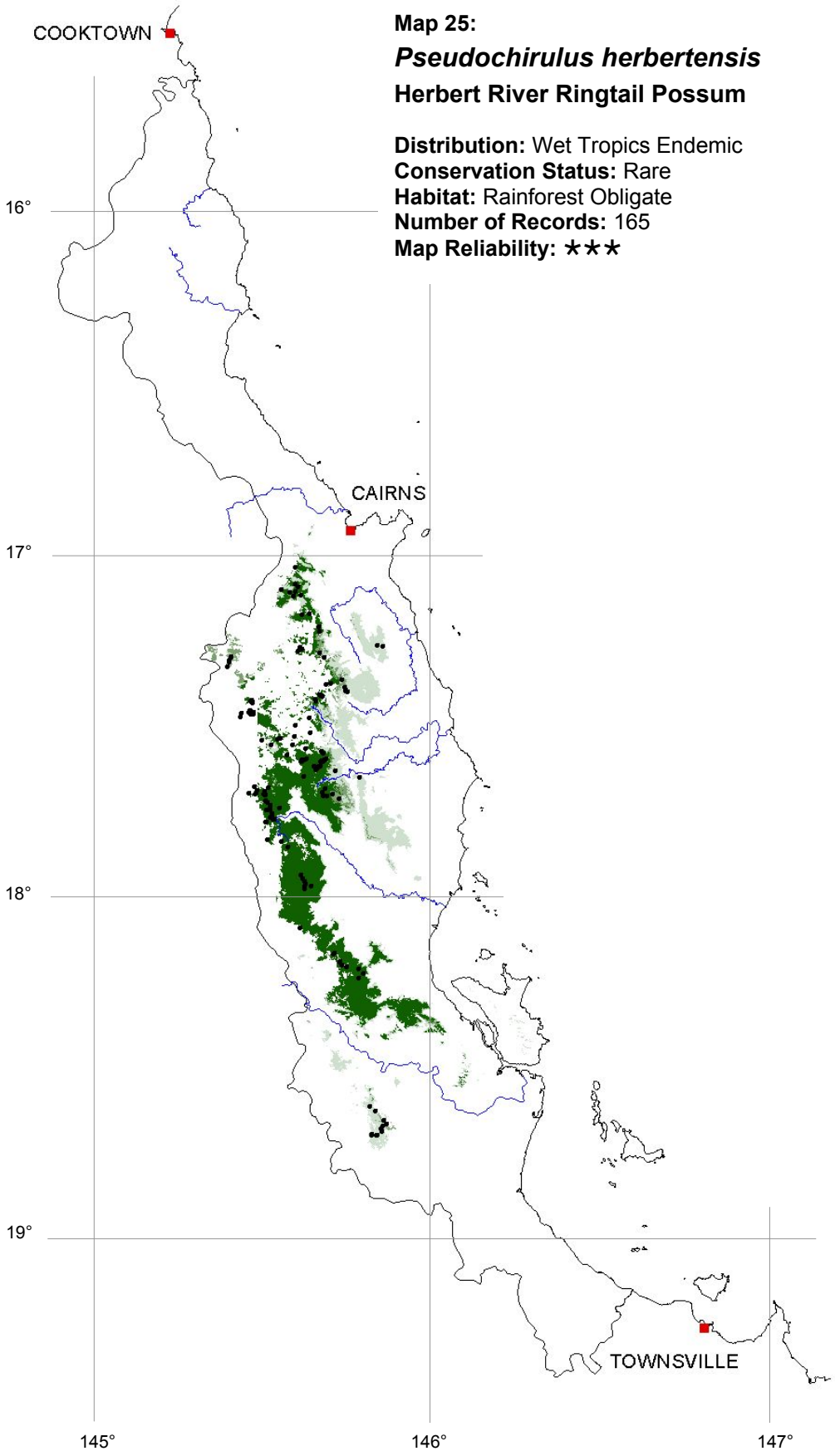


Map 24:

Pseudochirulus cinereus

Daintree River Ringtail Possum

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 147
Map Reliability: ★★

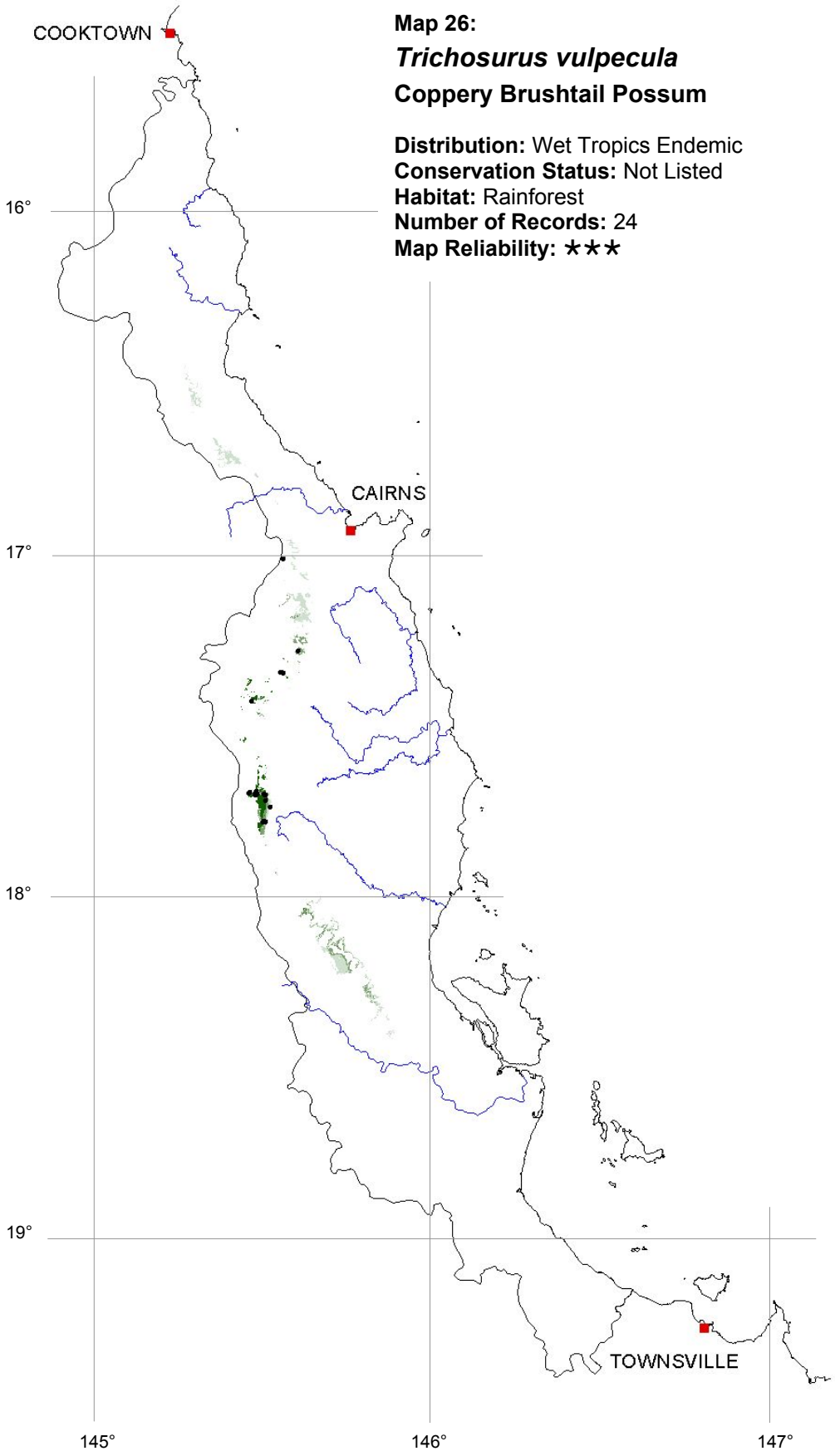


Map 25:

Pseudochirulus herbertensis

Herbert River Ringtail Possum

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 165
Map Reliability: ★★★

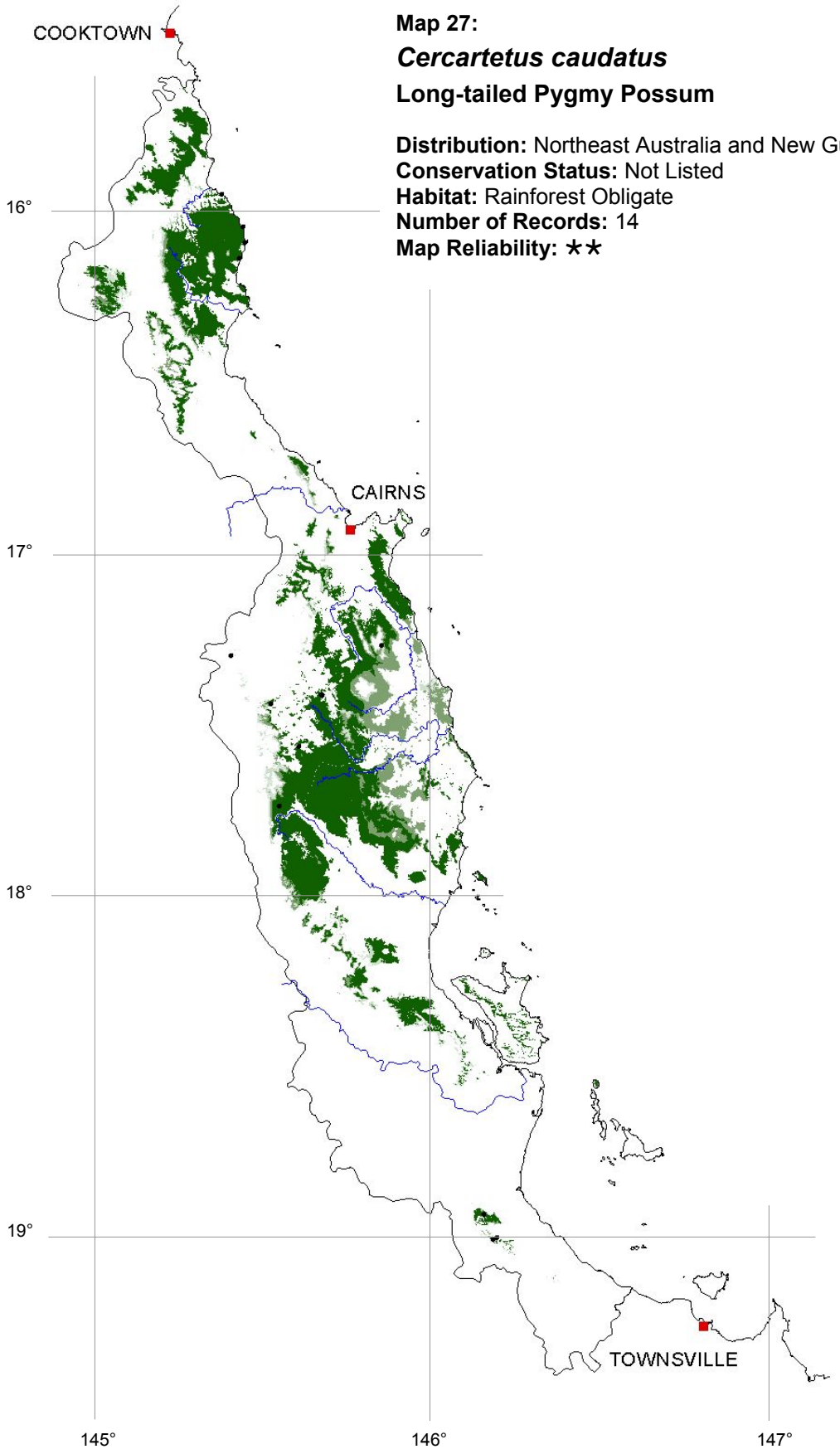


Map 26:

Trichosurus vulpecula

Coppery Brushtail Possum

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 24
Map Reliability: ★★★

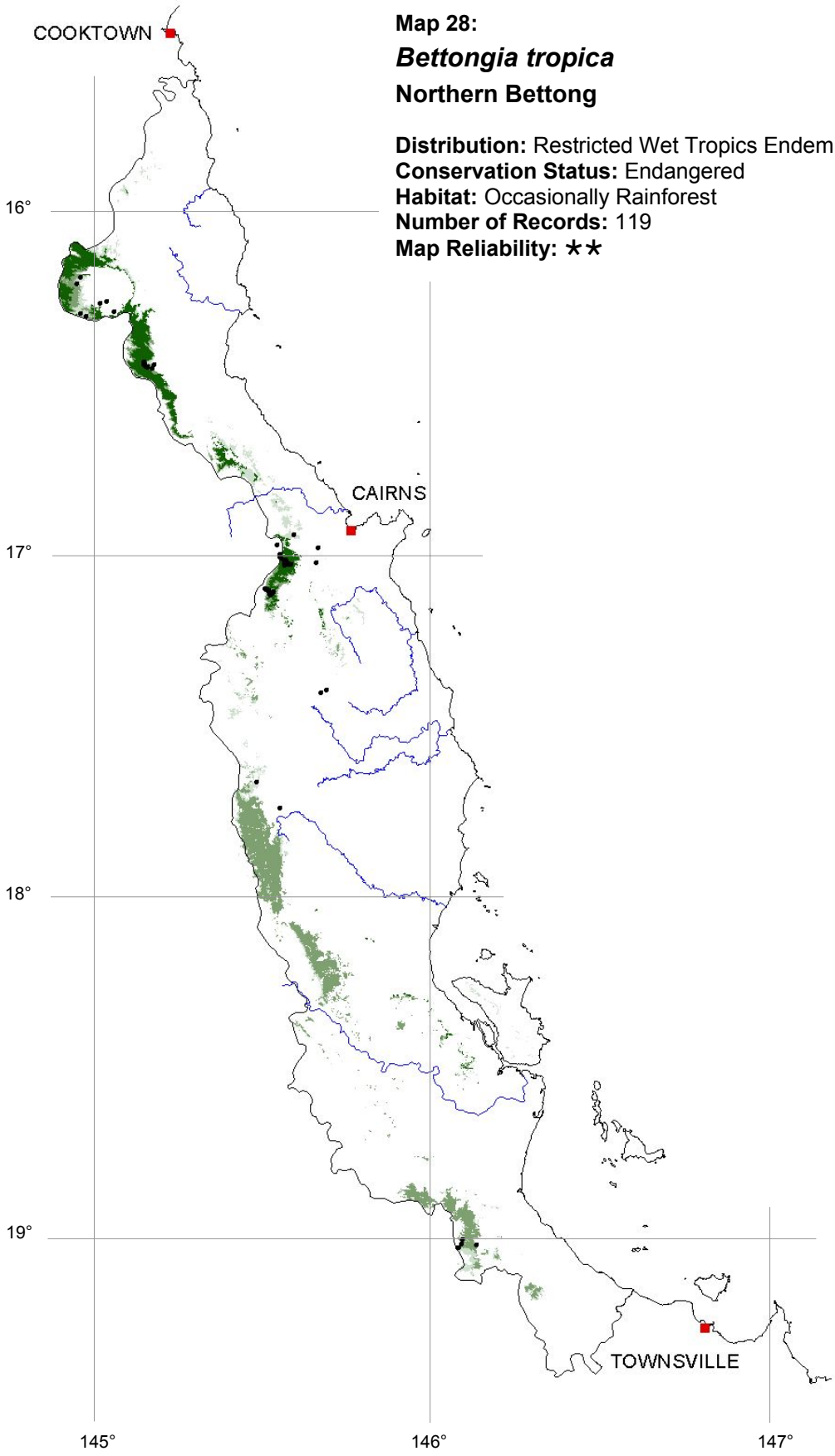


Map 27:

Cercartetus caudatus

Long-tailed Pygmy Possum

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 14
Map Reliability: ★★

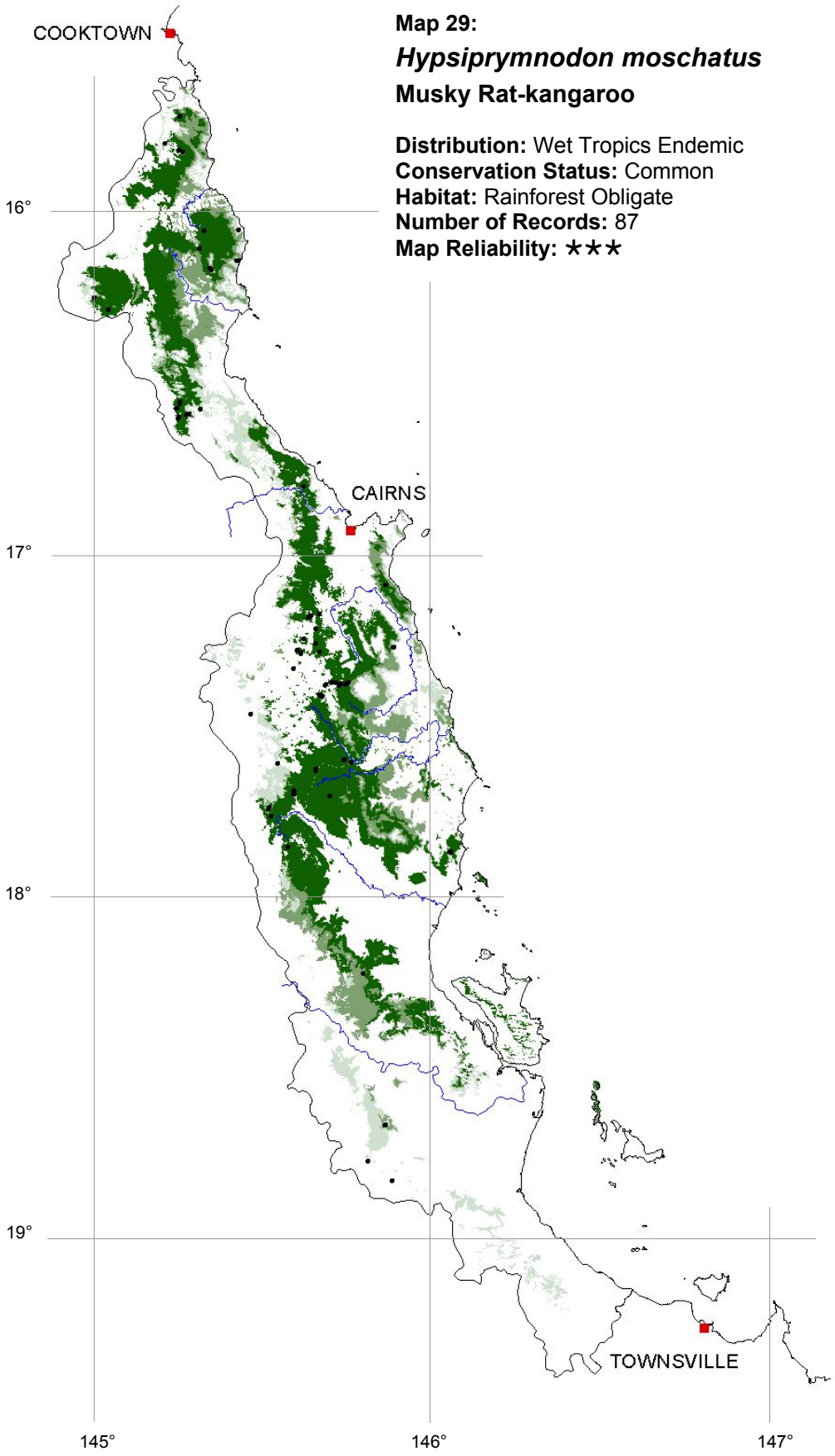


Map 28:

Bettongia tropica

Northern Bettong

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Occasionally Rainforest
Number of Records: 119
Map Reliability: ★★

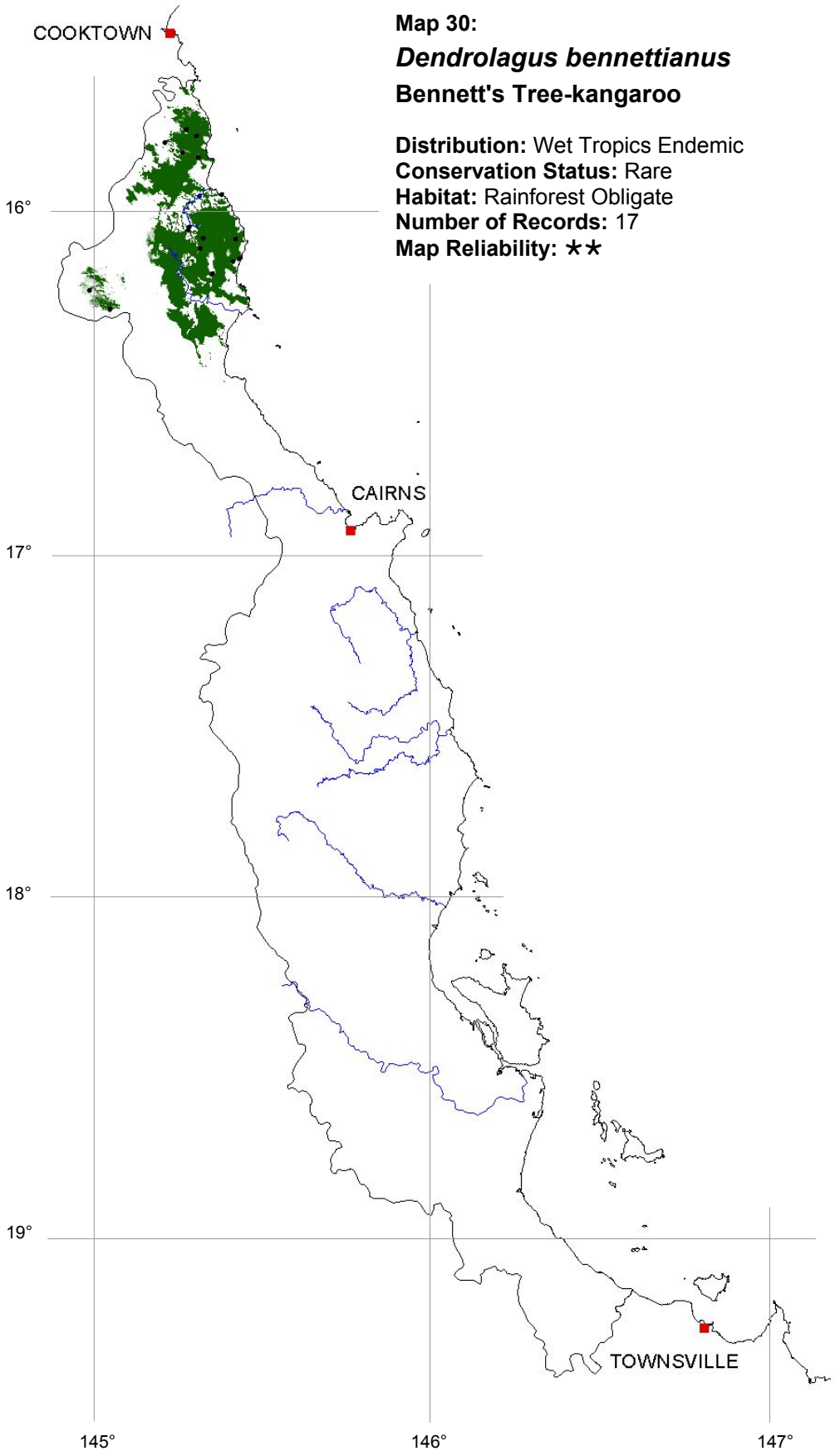


Map 29:

Hypsiprymnodon moschatus

Musky Rat-kangaroo

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 87
Map Reliability: ★★★

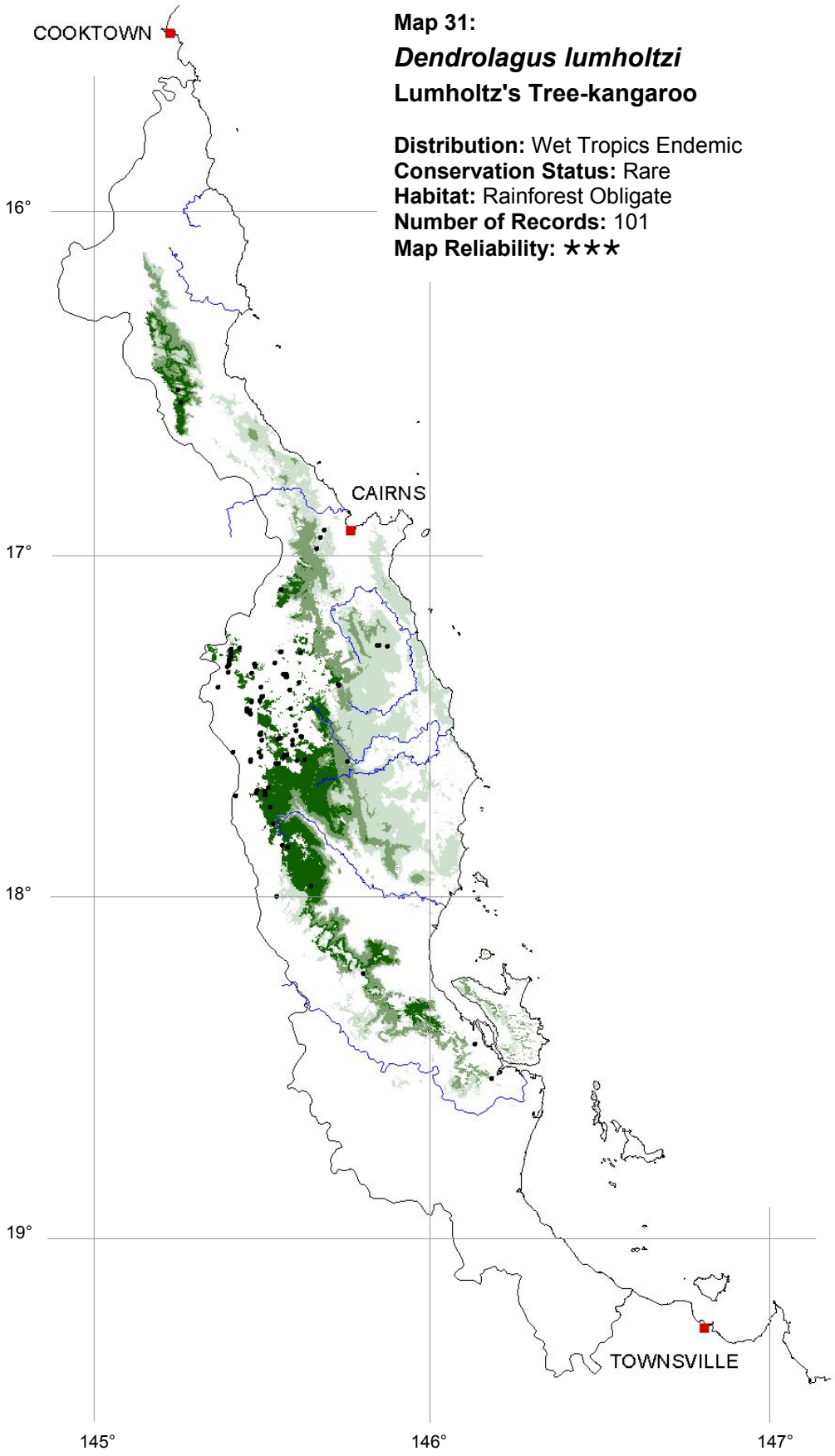


Map 30:

Dendrolagus bennettianus

Bennett's Tree-kangaroo

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 17
Map Reliability: ★★

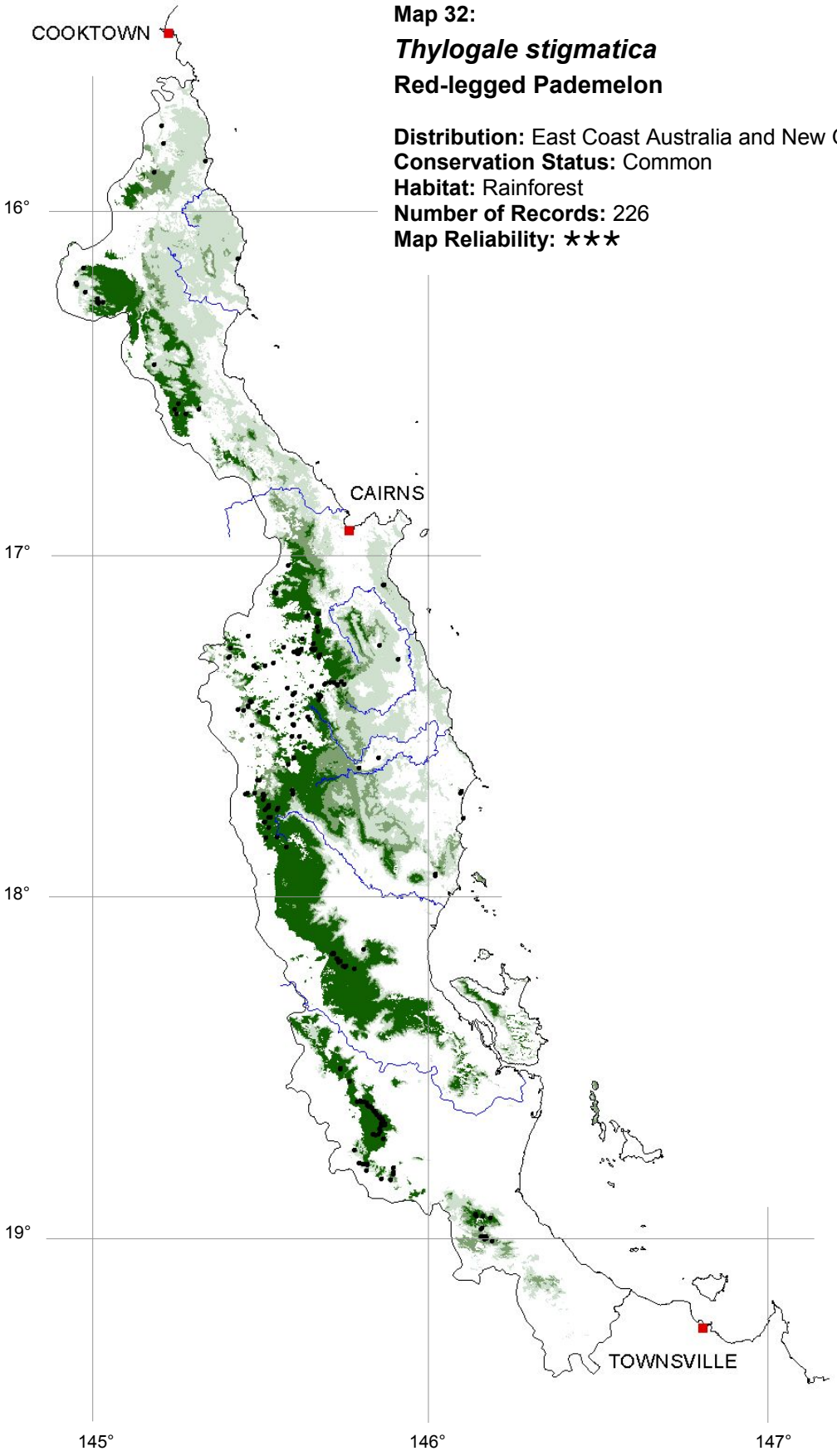


Map 31:

Dendrolagus lumholtzi

Lumholtz's Tree-kangaroo

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 101
Map Reliability: ★★★

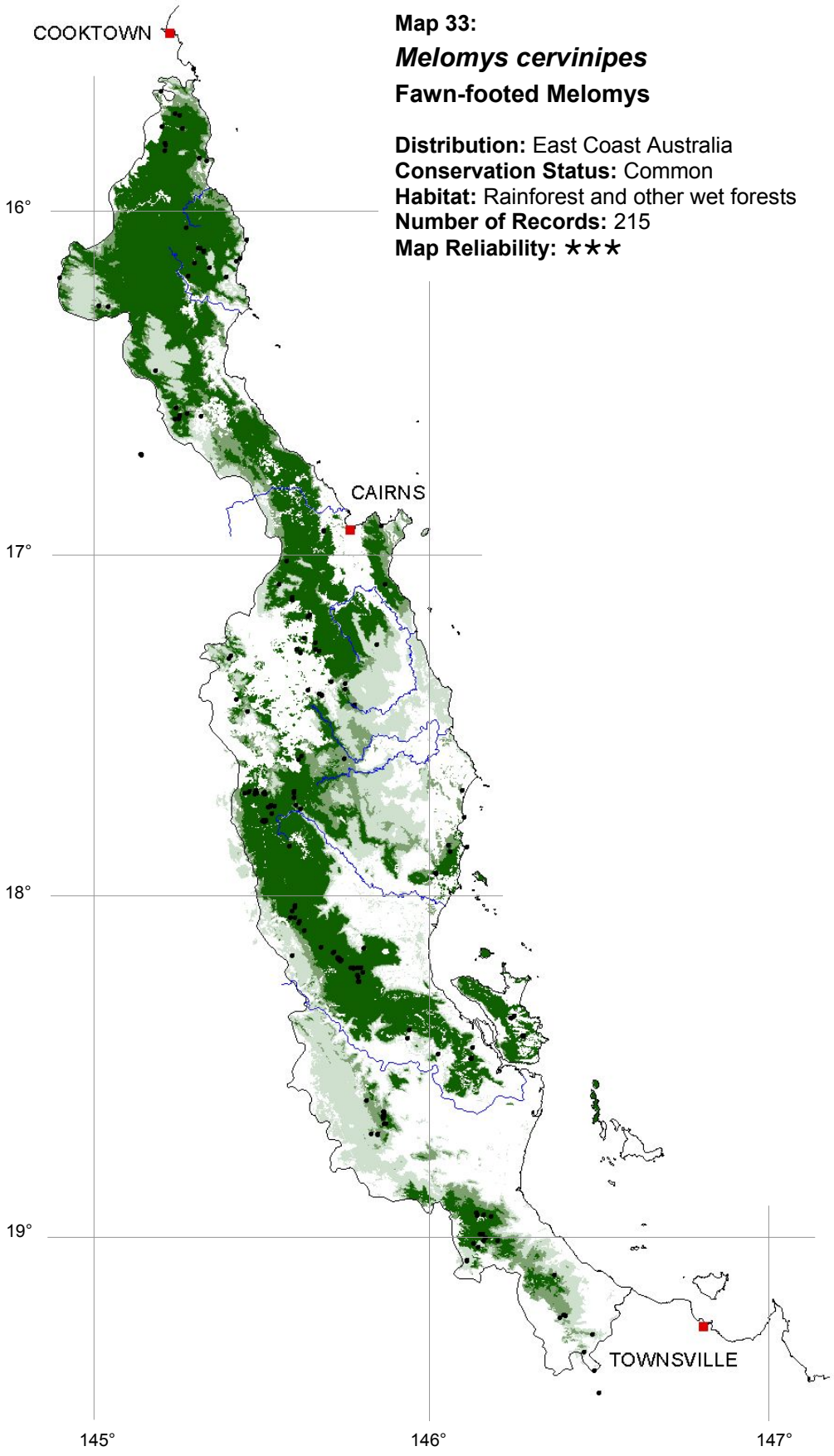


Map 32:

Thylogale stigmatica

Red-legged Pademelon

Distribution: East Coast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 226
Map Reliability: ★★★

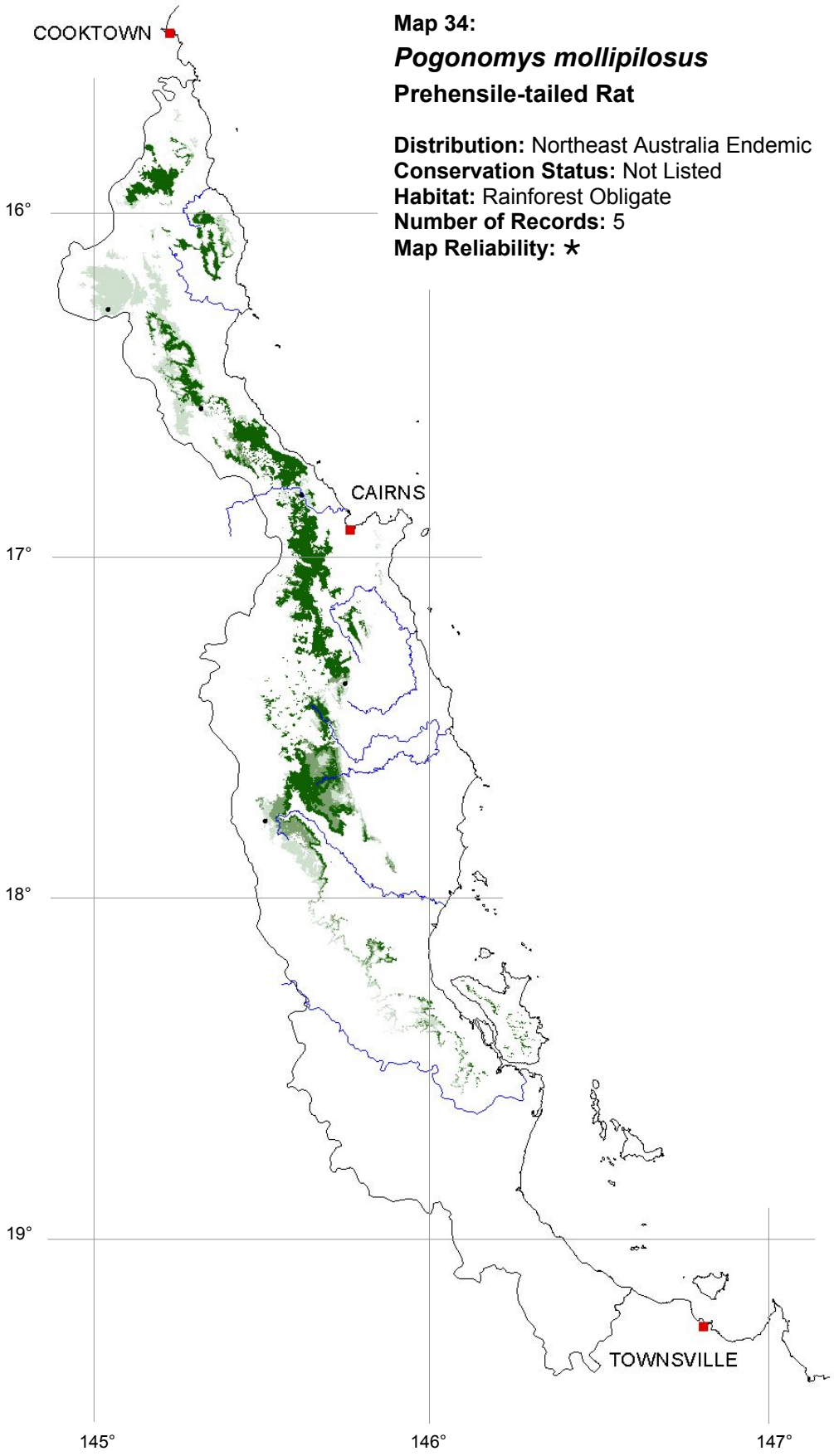


Map 33:

Melomys cervinipes

Fawn-footed Melomys

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 215
Map Reliability: ★★★

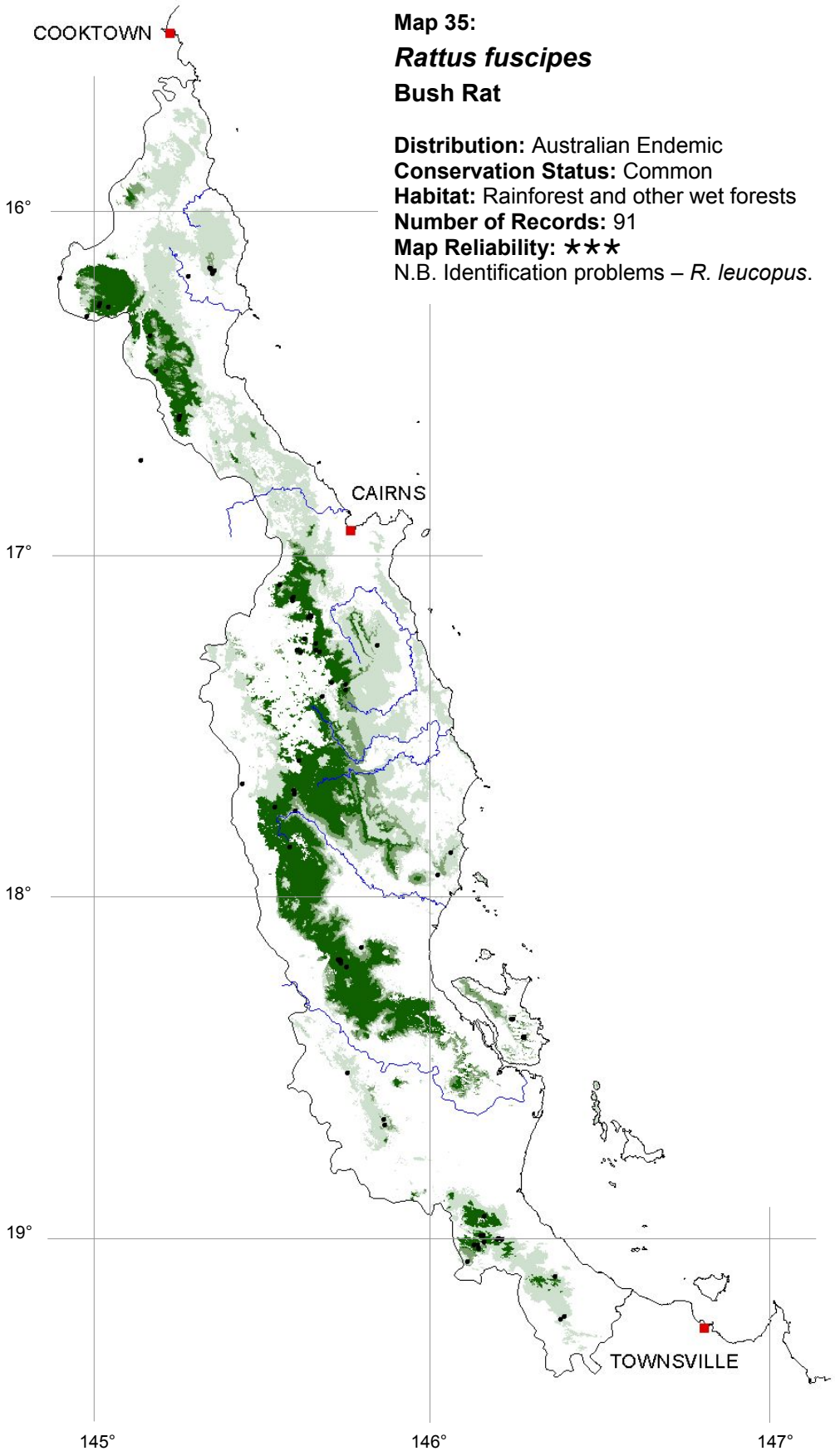


Map 34:

Pogonomys mollipilosus

Prehensile-tailed Rat

Distribution: Northeast Australia Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 5
Map Reliability: ★

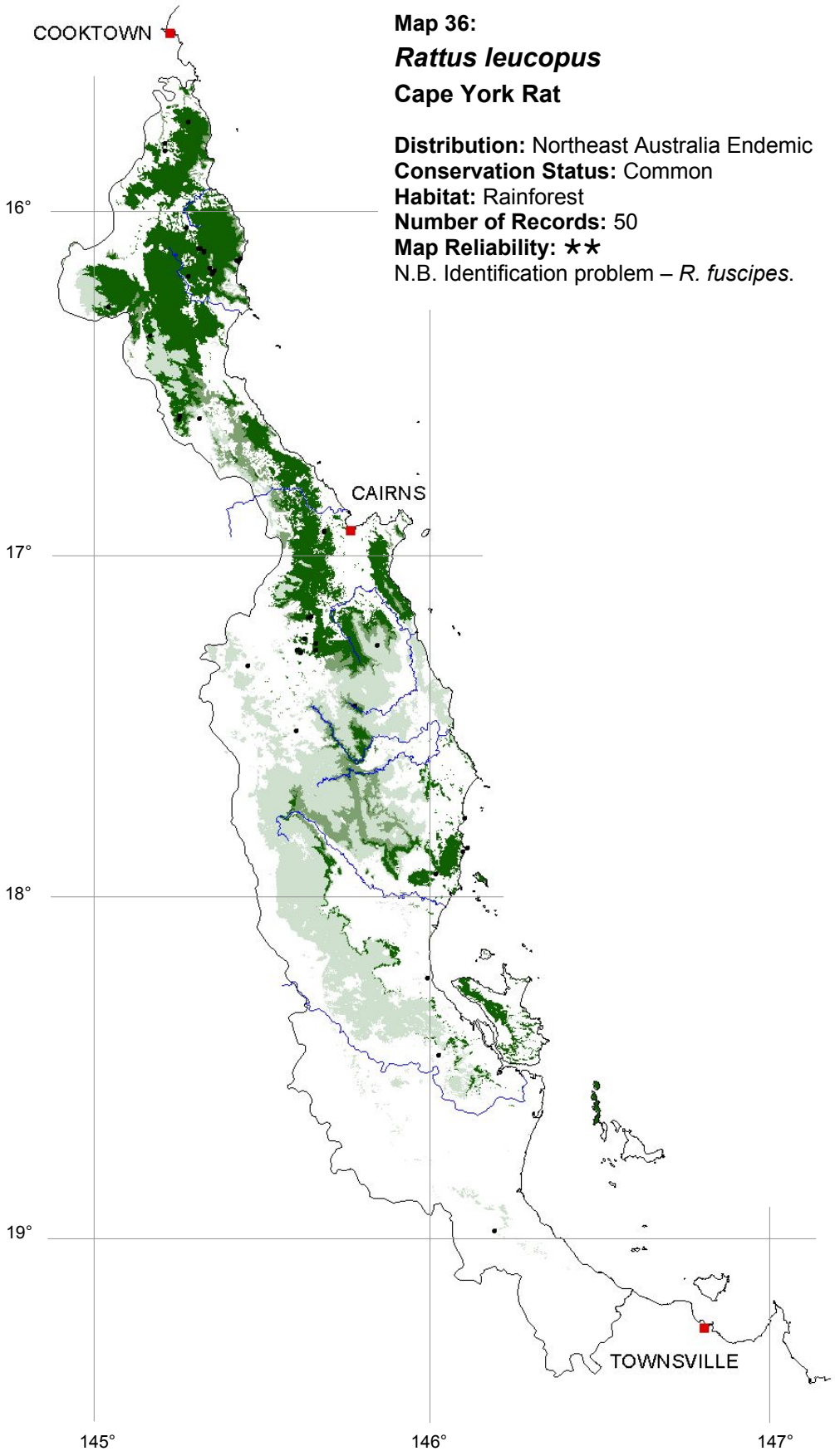


Map 35:

Rattus fuscipes

Bush Rat

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 91
Map Reliability: ★★★
N.B. Identification problems – *R. leucopus*.

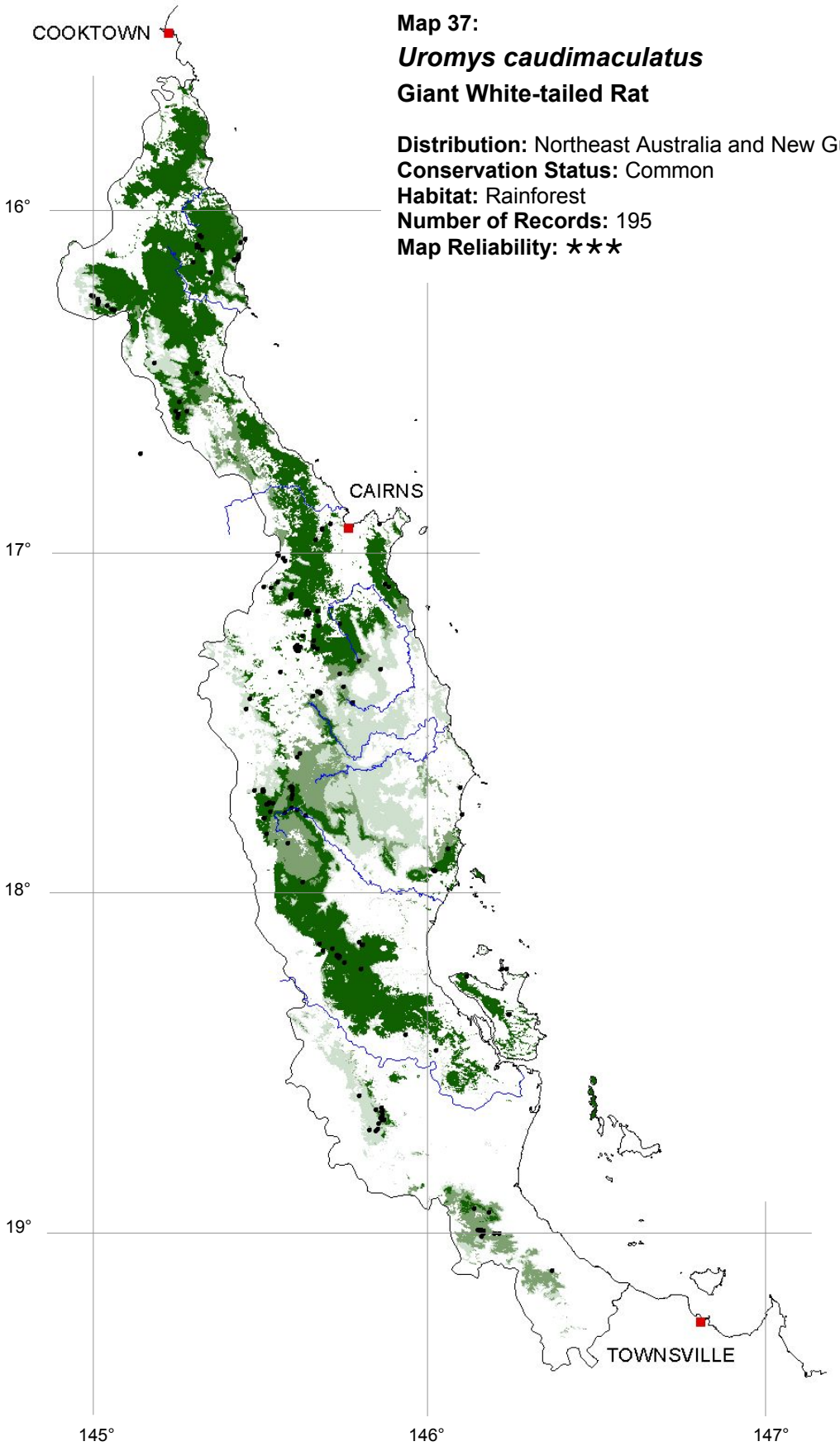


Map 36:

Rattus leucopus

Cape York Rat

Distribution: Northeast Australia Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 50
Map Reliability: ★★
N.B. Identification problem – *R. fuscipes*.

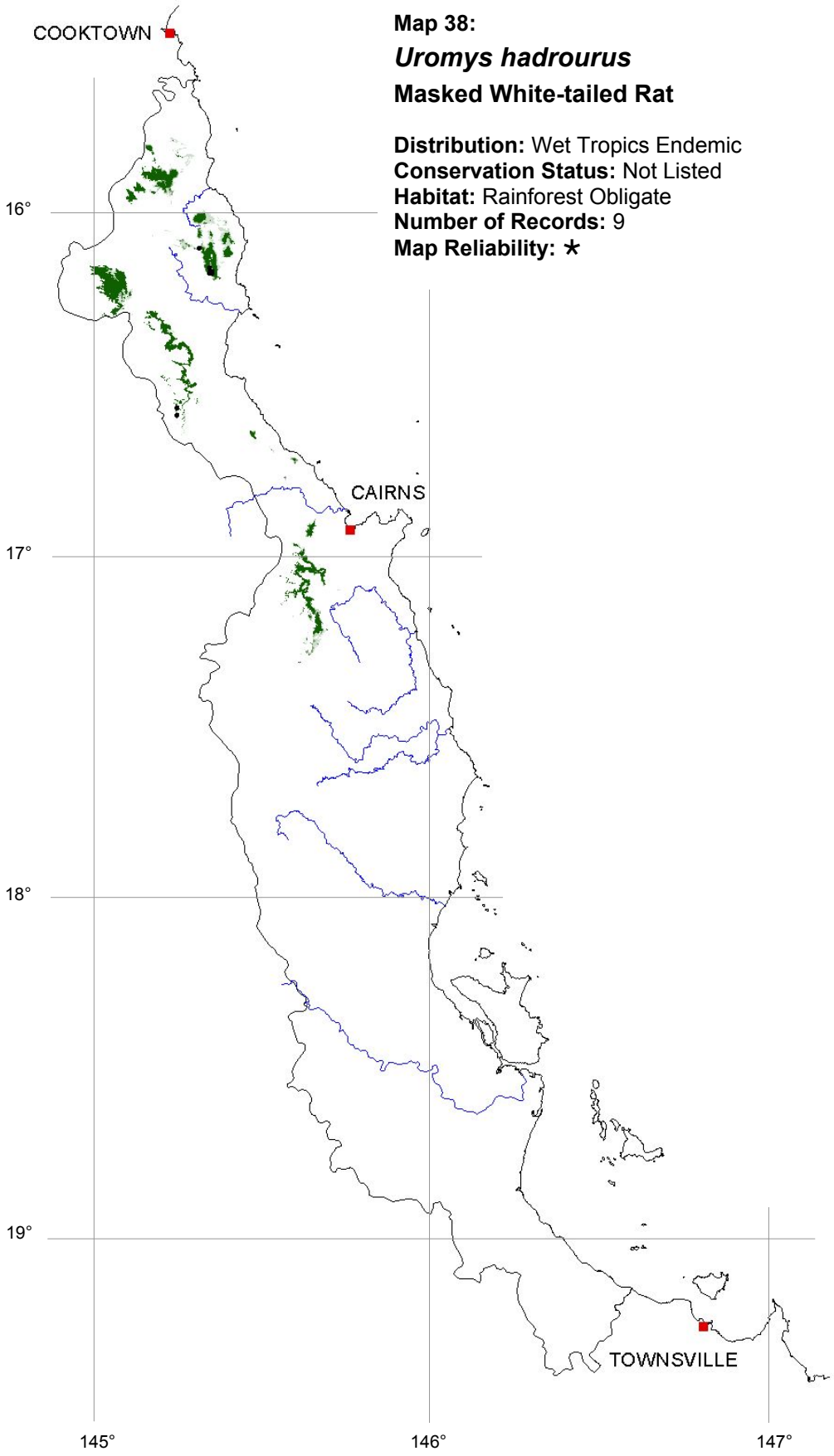


Map 37:

Uromys caudimaculatus

Giant White-tailed Rat

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 195
Map Reliability: ★★★



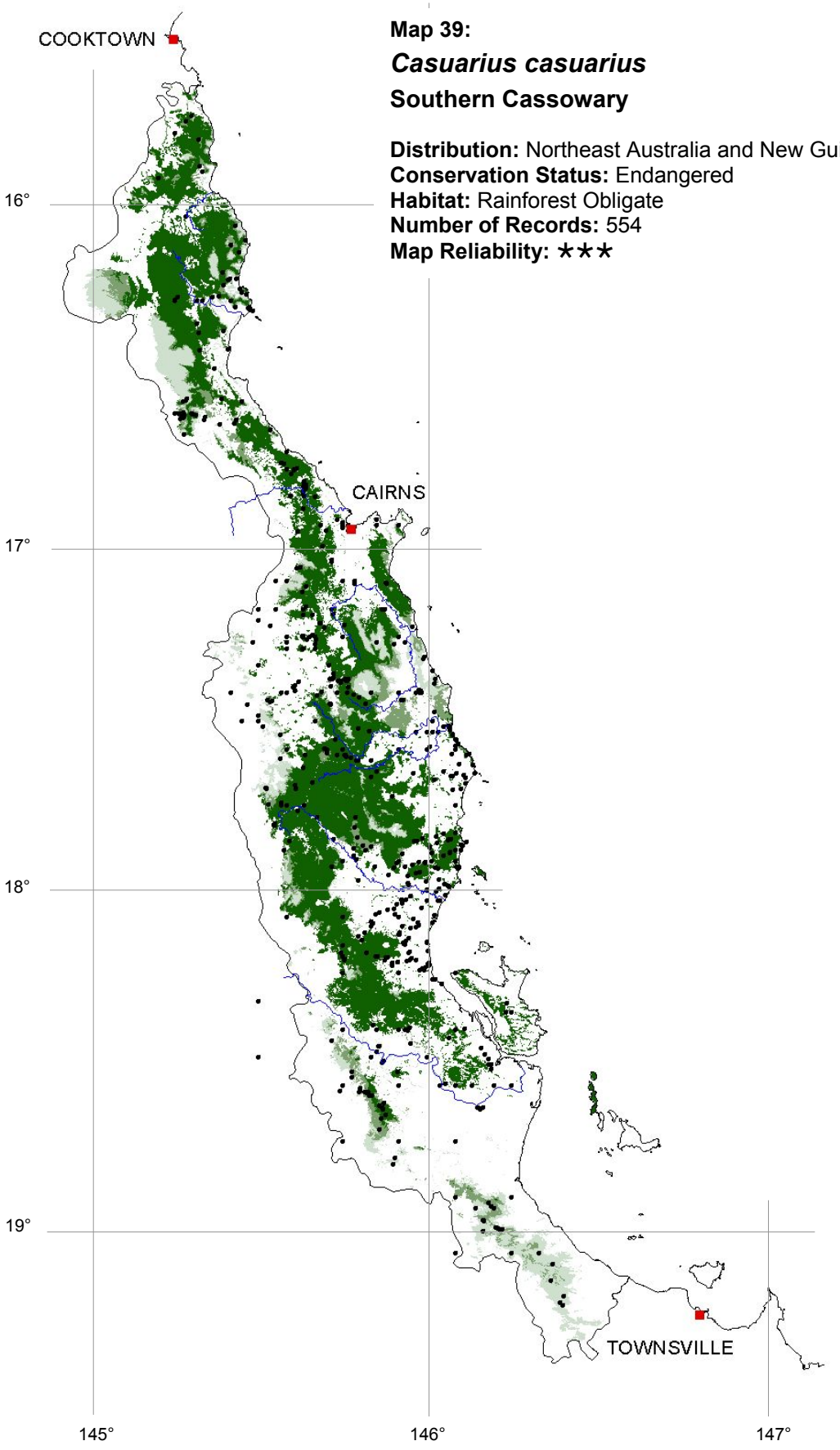
Map 38:

Uromys hadrourus

Masked White-tailed Rat

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 9
Map Reliability: ★

Birds

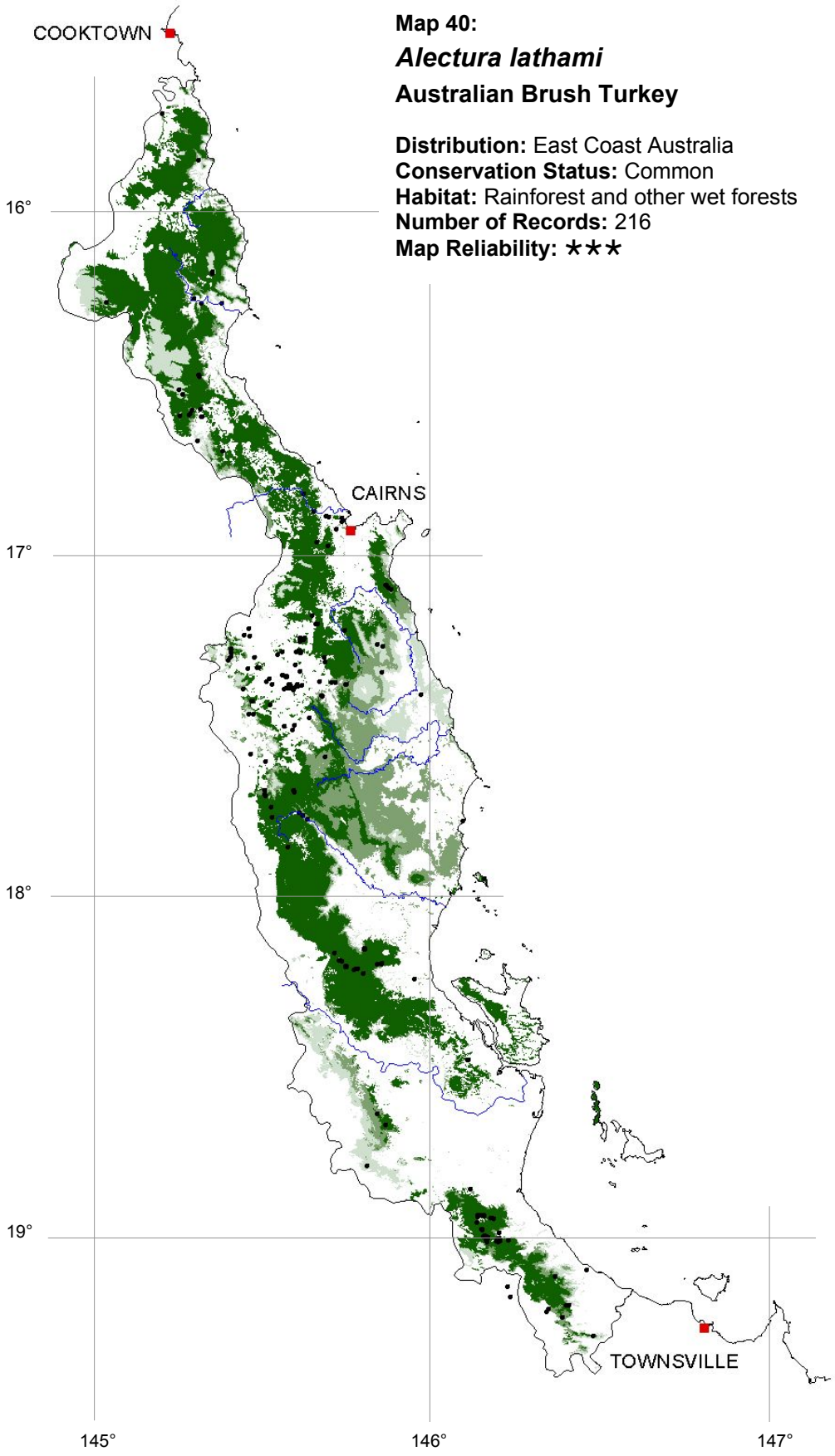


Map 39:

Casuarius casuarius

Southern Cassowary

Distribution: Northeast Australia and New Guinea
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 554
Map Reliability: ★★★

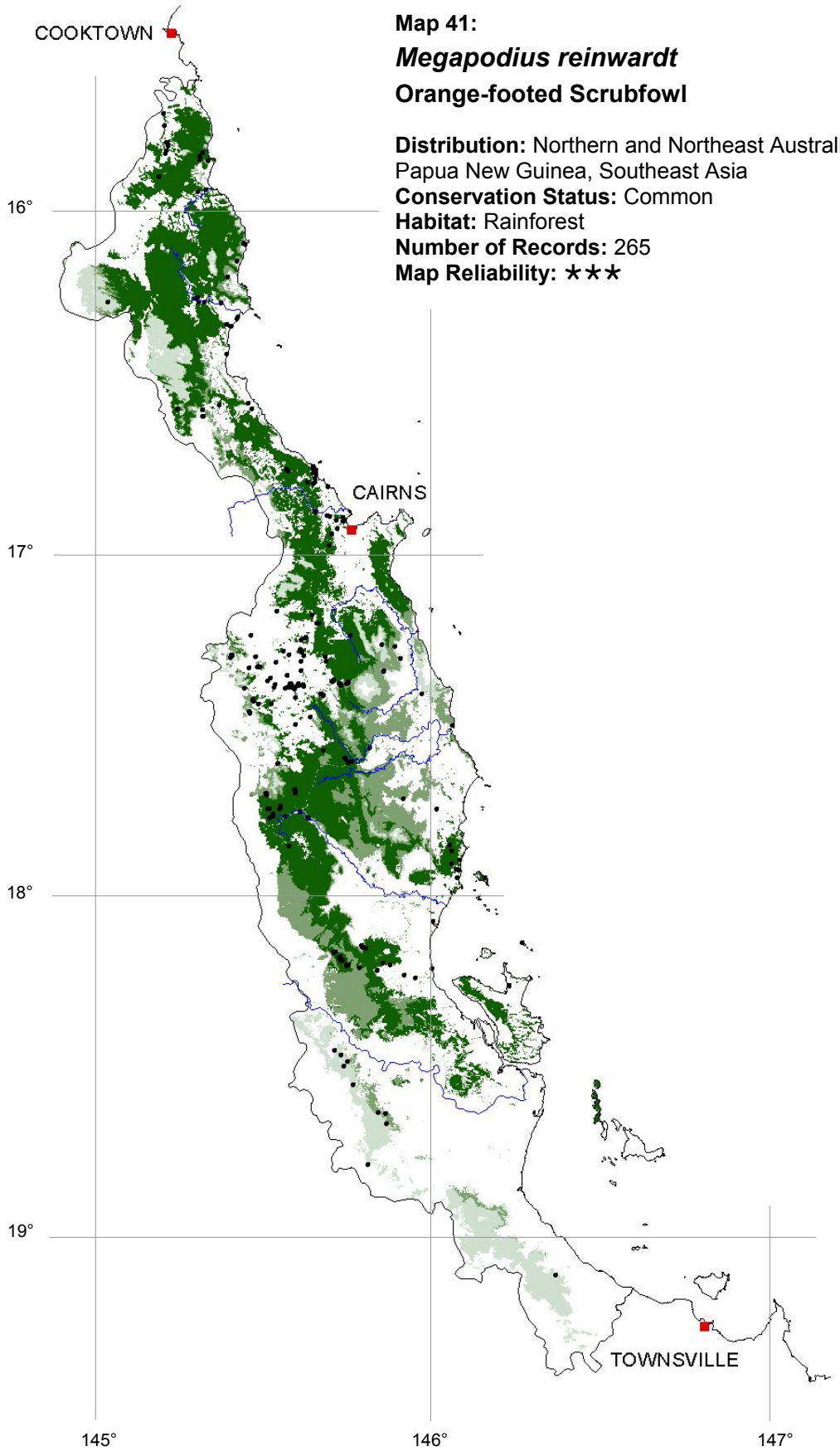


Map 40:

Alectura lathami

Australian Brush Turkey

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 216
Map Reliability: ★★★

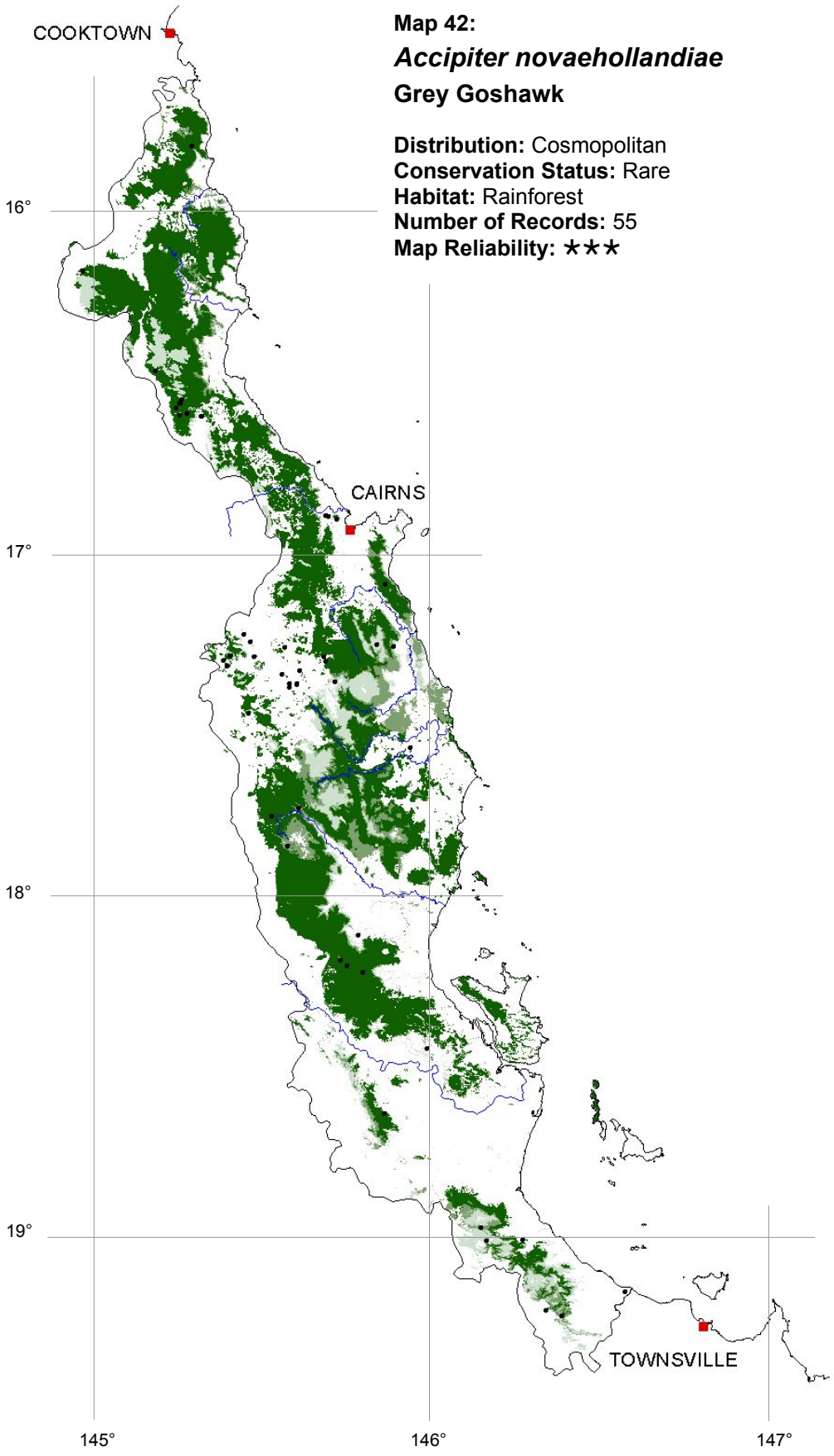


Map 41:

Megapodius reinwardt

Orange-footed Scrubfowl

Distribution: Northern and Northeast Australia, Papua New Guinea, Southeast Asia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 265
Map Reliability: ★★★

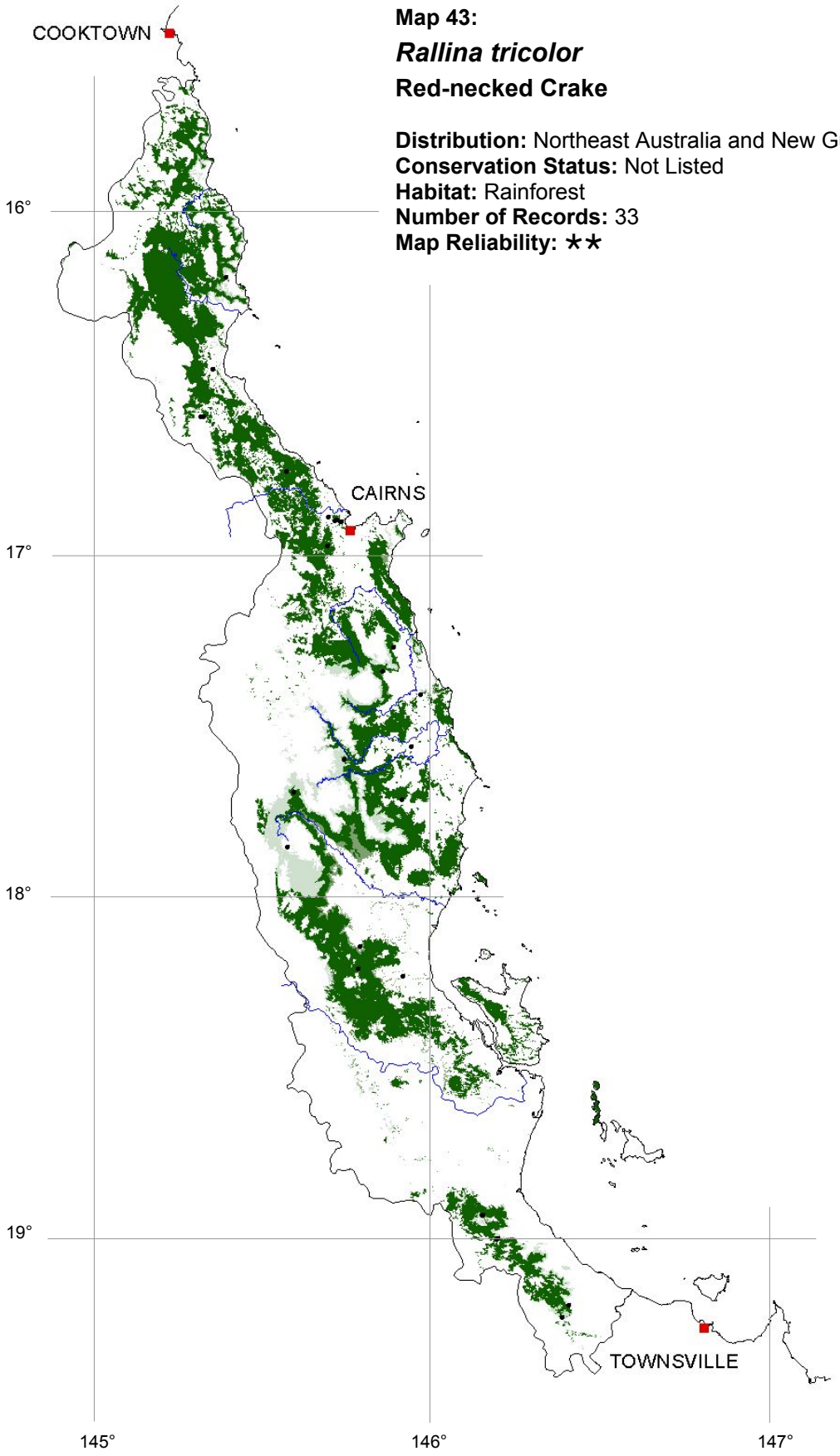


Map 42:

Accipiter novaehollandiae

Grey Goshawk

Distribution: Cosmopolitan
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 55
Map Reliability: ★★★

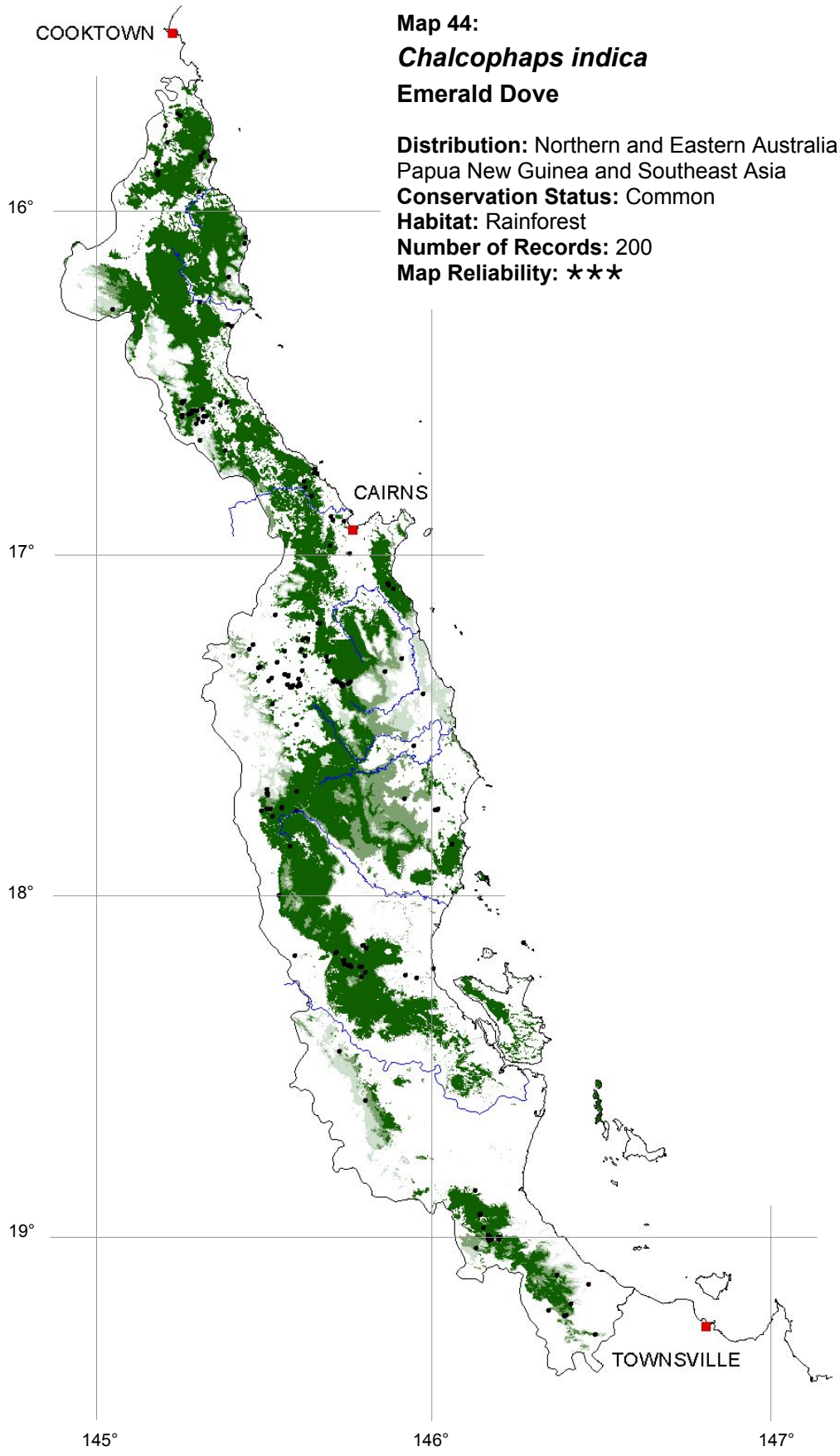


Map 43:

Rallina tricolor

Red-necked Crake

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 33
Map Reliability: ★★

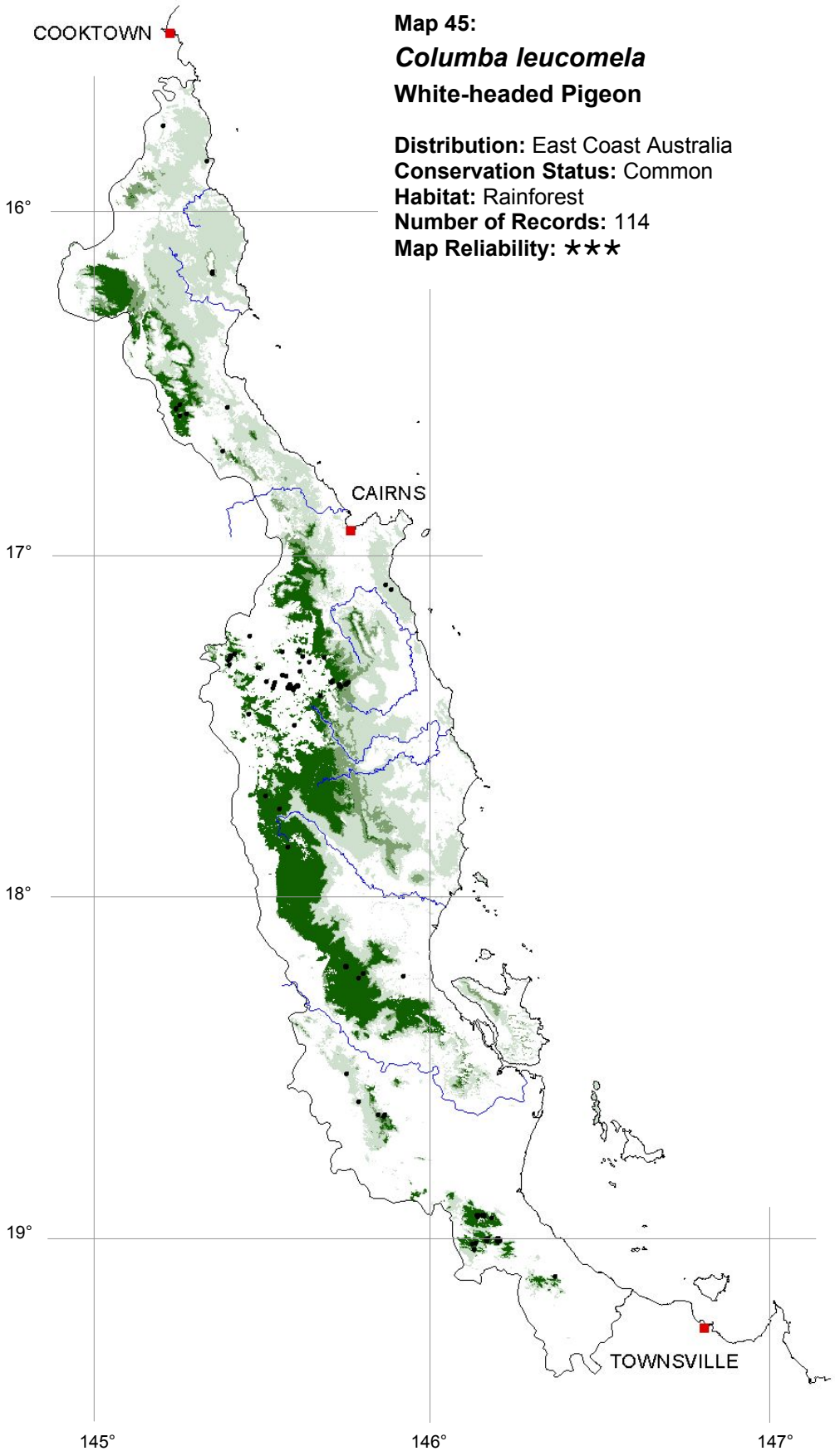


Map 44:

Chalcophaps indica

Emerald Dove

Distribution: Northern and Eastern Australia, Papua New Guinea and Southeast Asia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 200
Map Reliability: ★★★

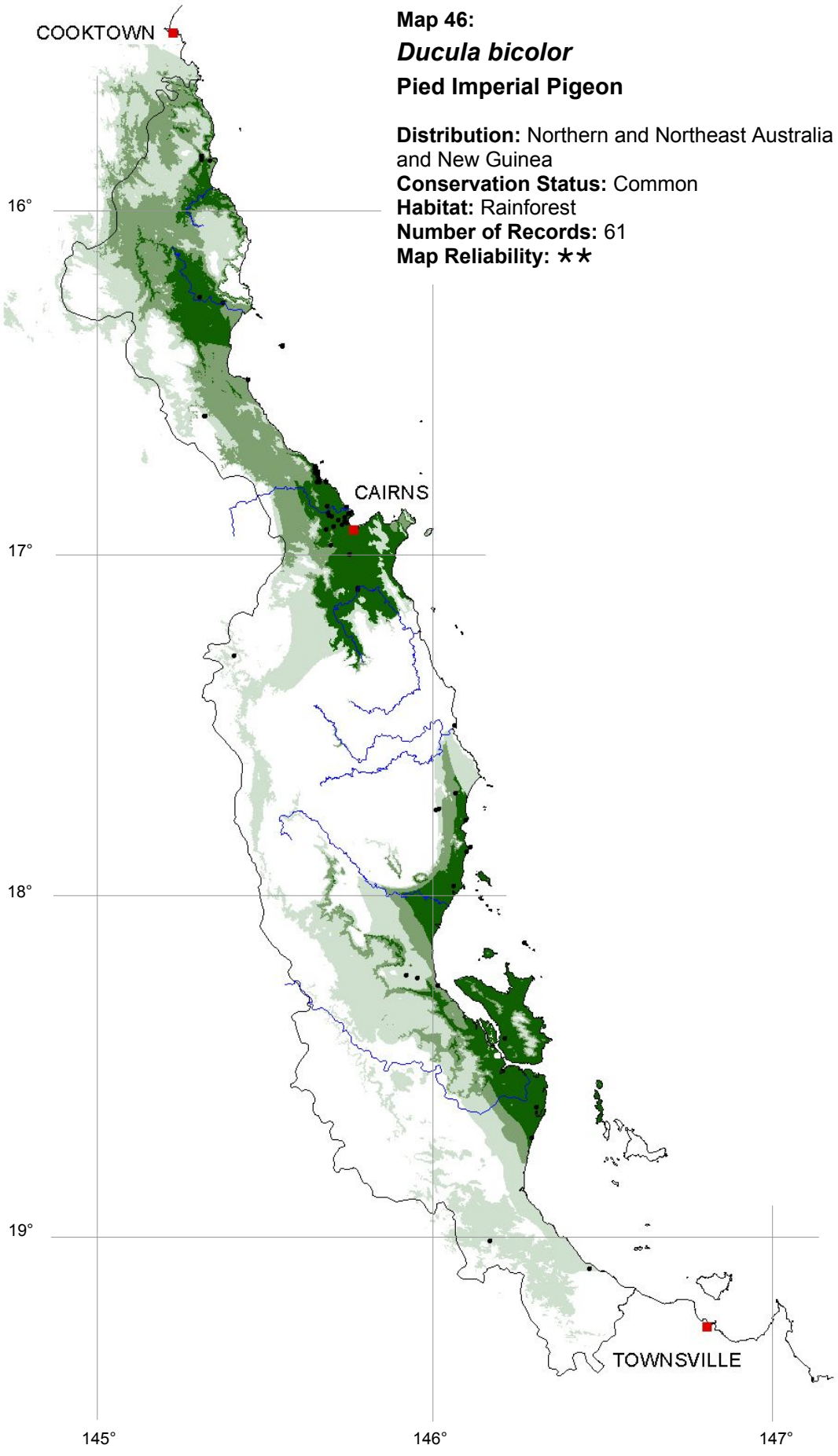


Map 45:

Columba leucomela

White-headed Pigeon

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 114
Map Reliability: ★★★

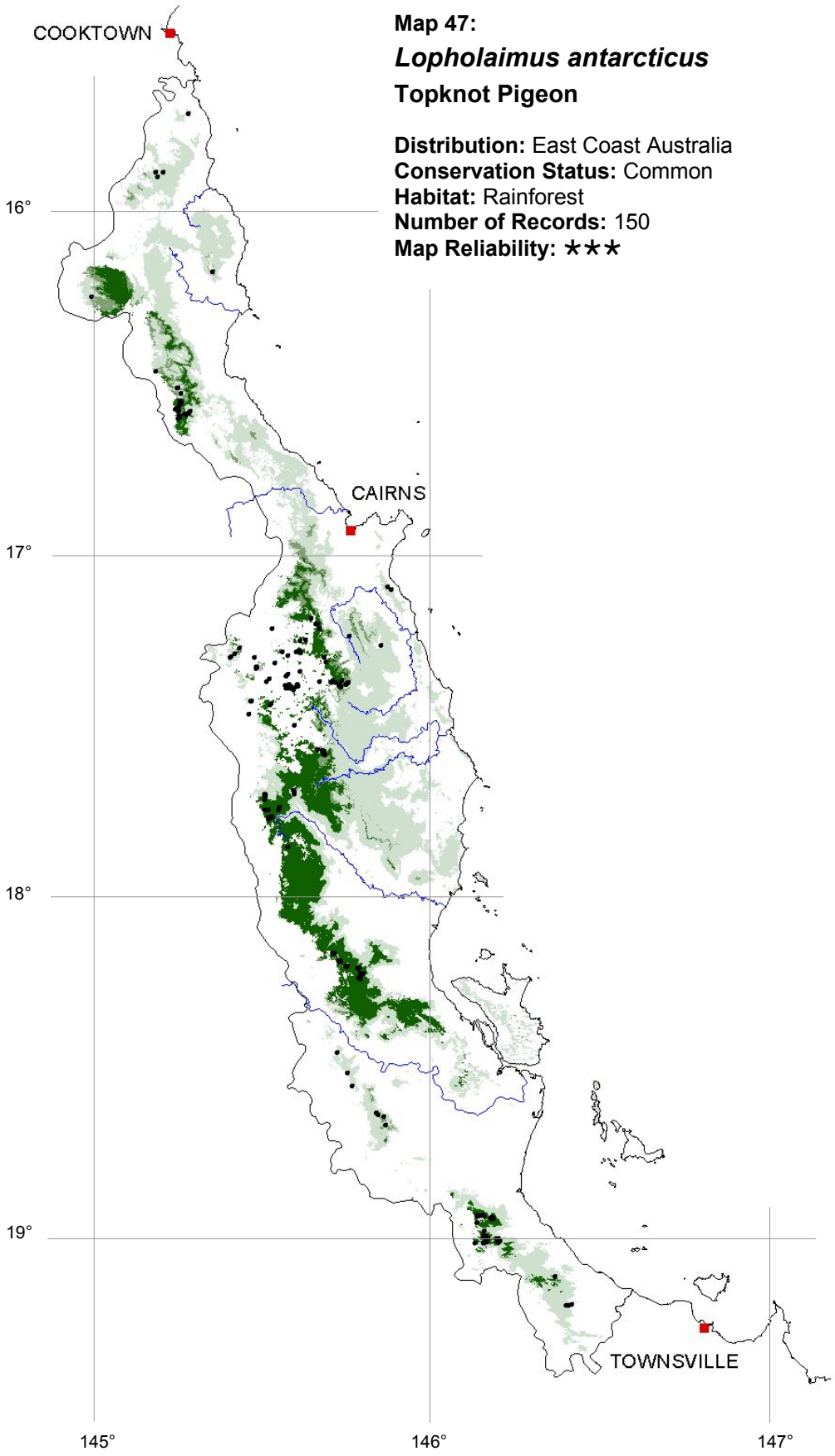


Map 46:

Ducula bicolor

Pied Imperial Pigeon

Distribution: Northern and Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 61
Map Reliability: ★★

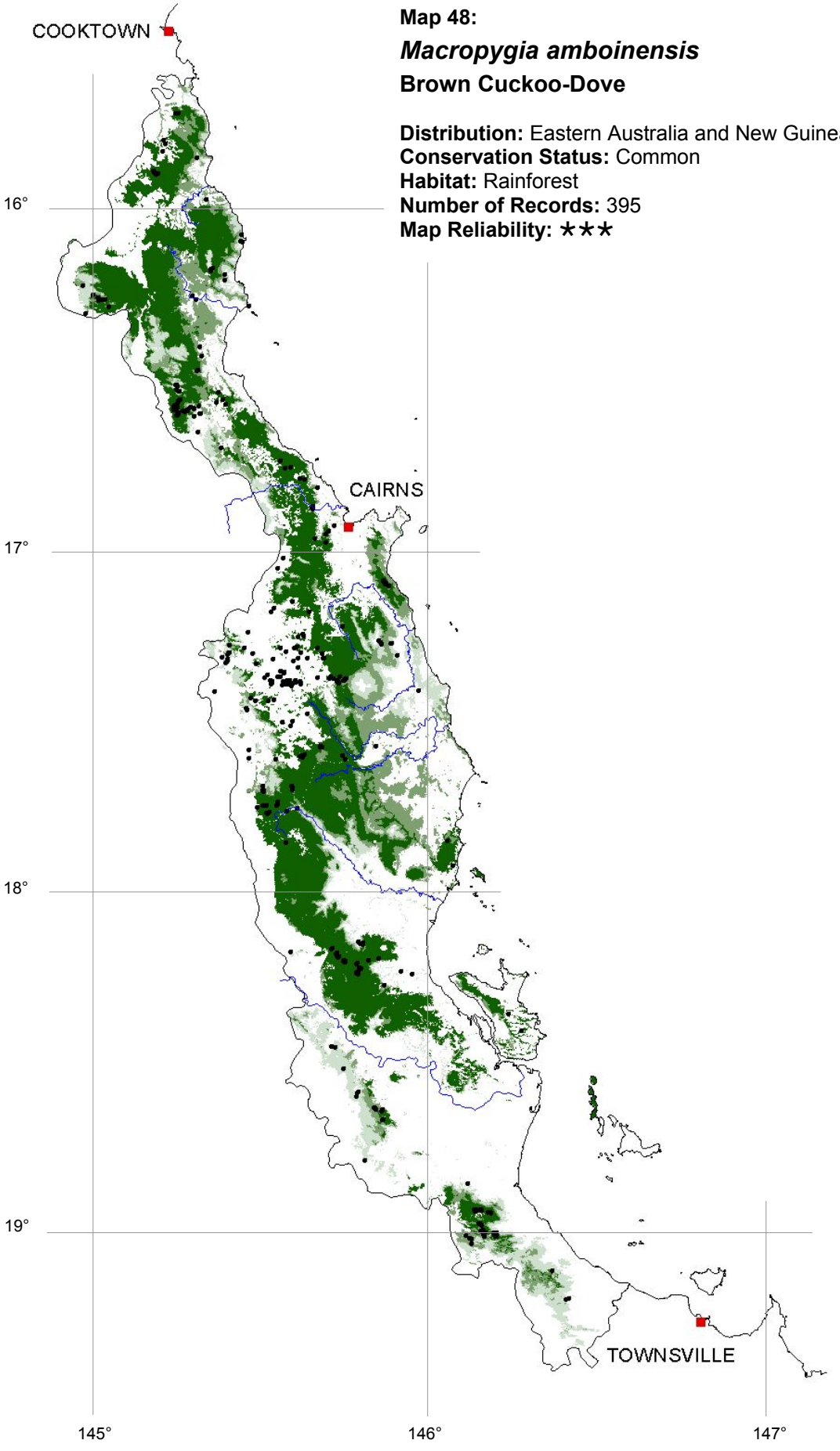


Map 47:

Lopholaimus antarcticus

Topknot Pigeon

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 150
Map Reliability: ★★★

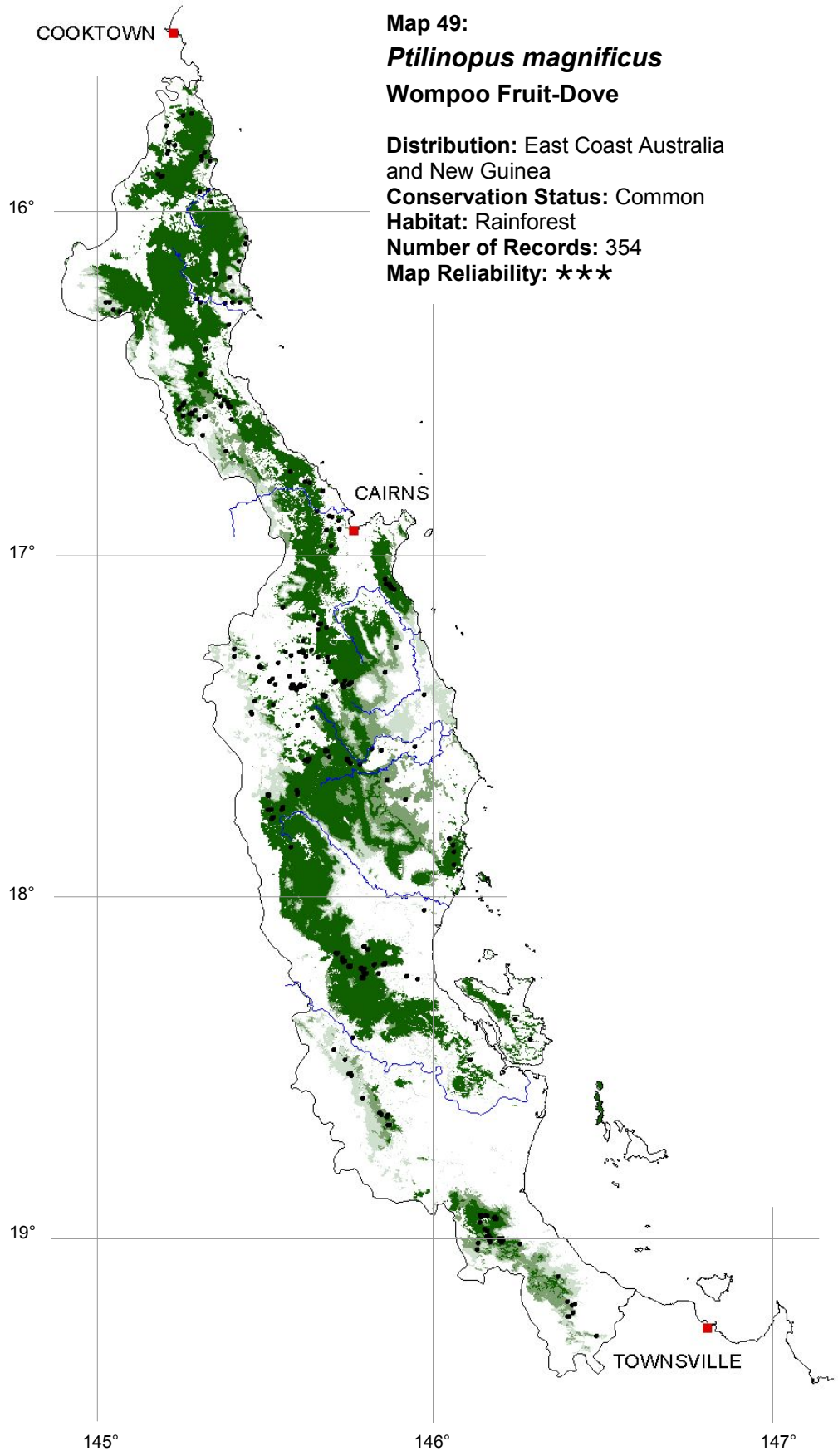


Map 48:

Macropygia amboinensis

Brown Cuckoo-Dove

Distribution: Eastern Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 395
Map Reliability: ★★★

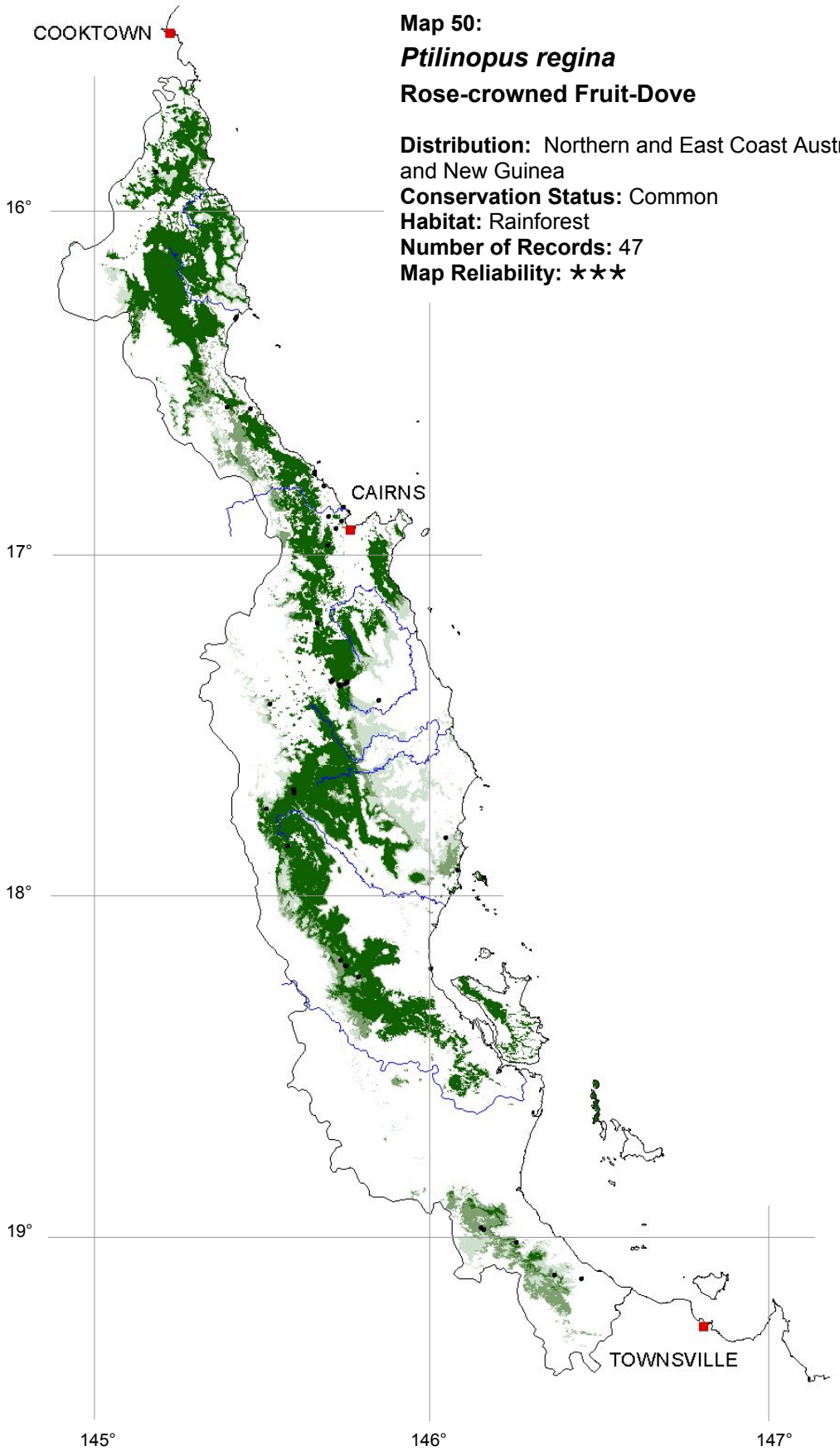


Map 49:

Ptilinopus magnificus

Wompoo Fruit-Dove

Distribution: East Coast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 354
Map Reliability: ★★★

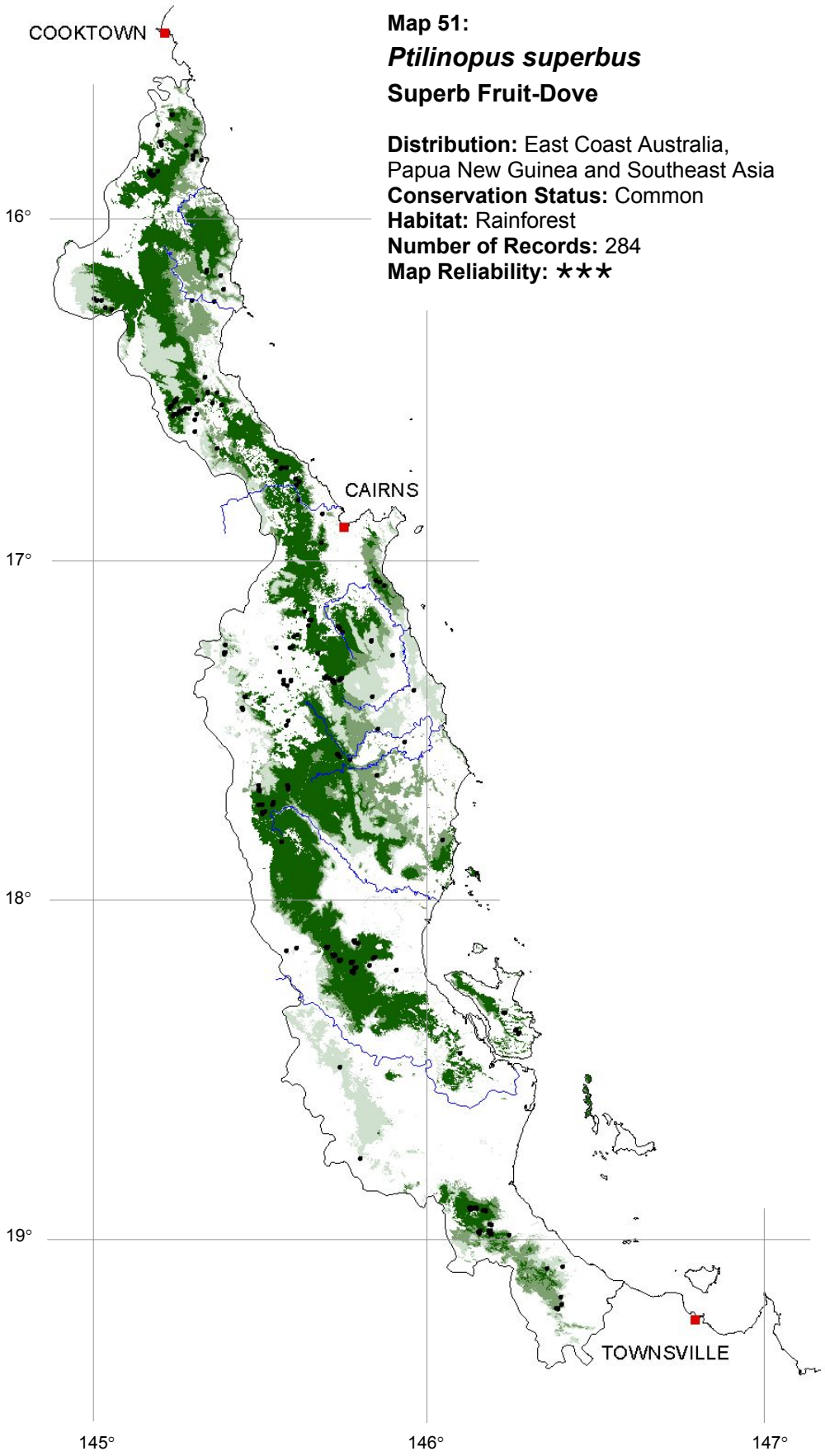


Map 50:

Ptilinopus regina

Rose-crowned Fruit-Dove

Distribution: Northern and East Coast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 47
Map Reliability: ★★★

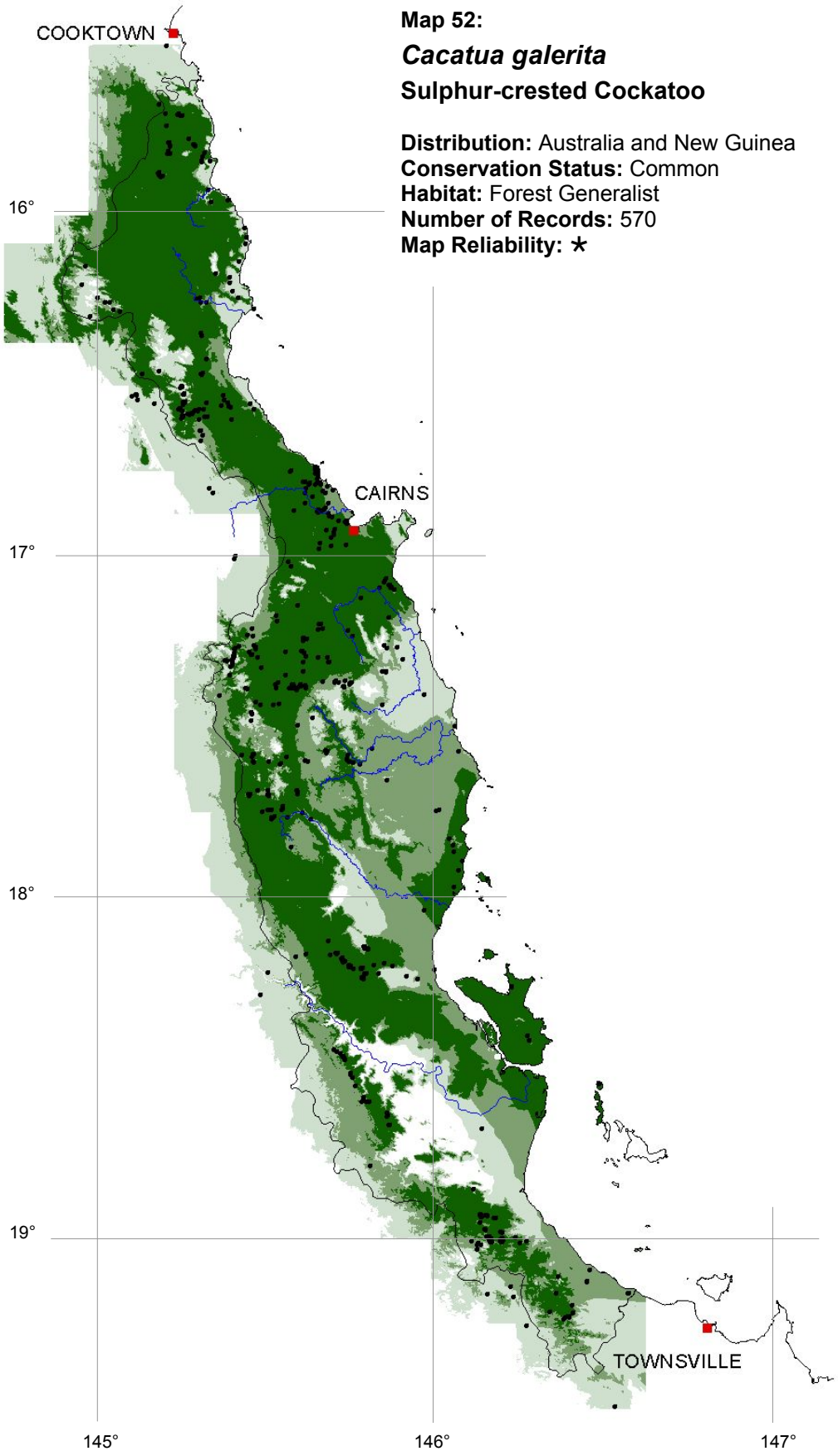


Map 51:

Ptilinopus superbus

Superb Fruit-Dove

Distribution: East Coast Australia, Papua New Guinea and Southeast Asia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 284
Map Reliability: ★★★

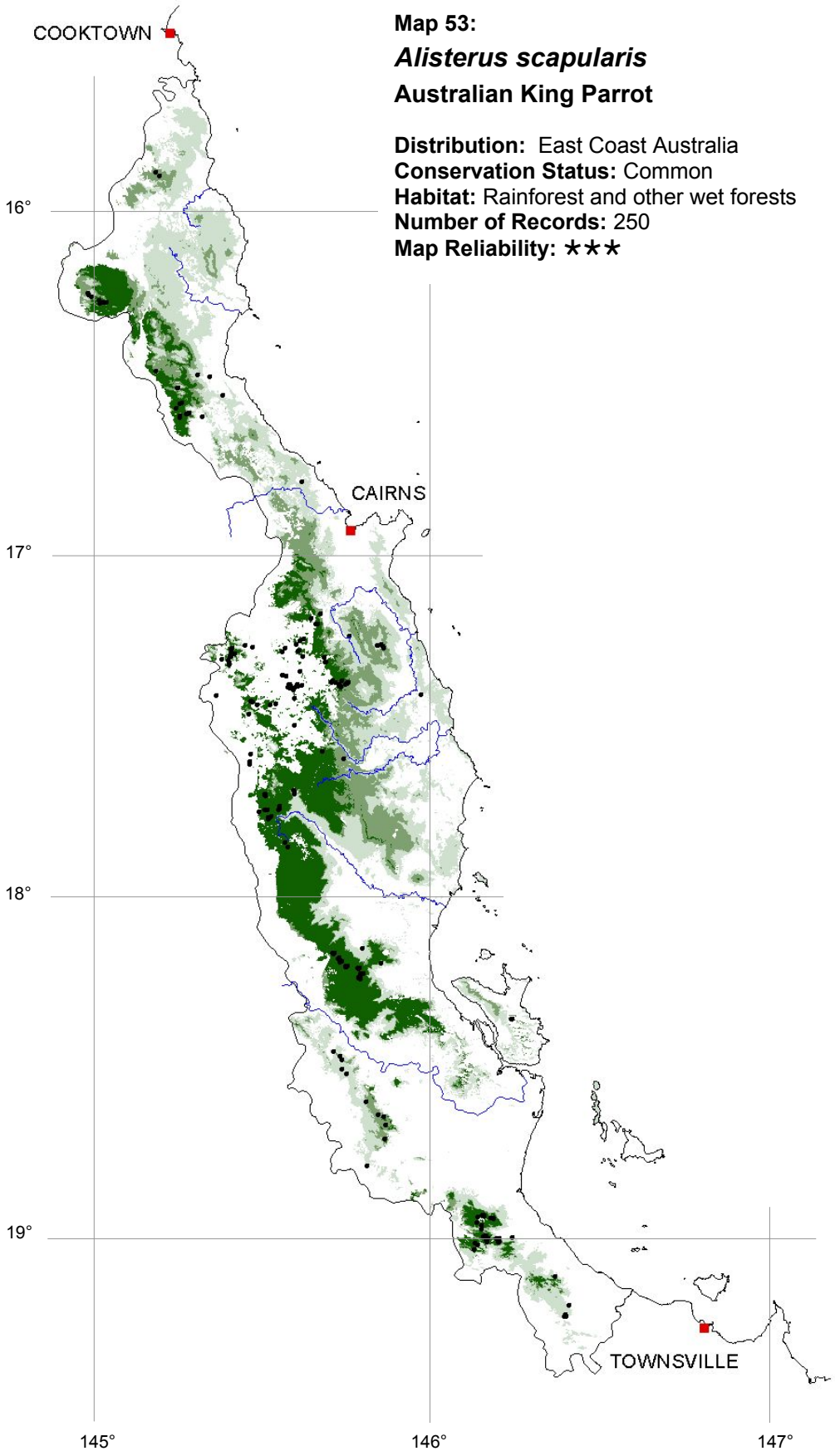


Map 52:

Cacatua galerita

Sulphur-crested Cockatoo

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 570
Map Reliability: ✶

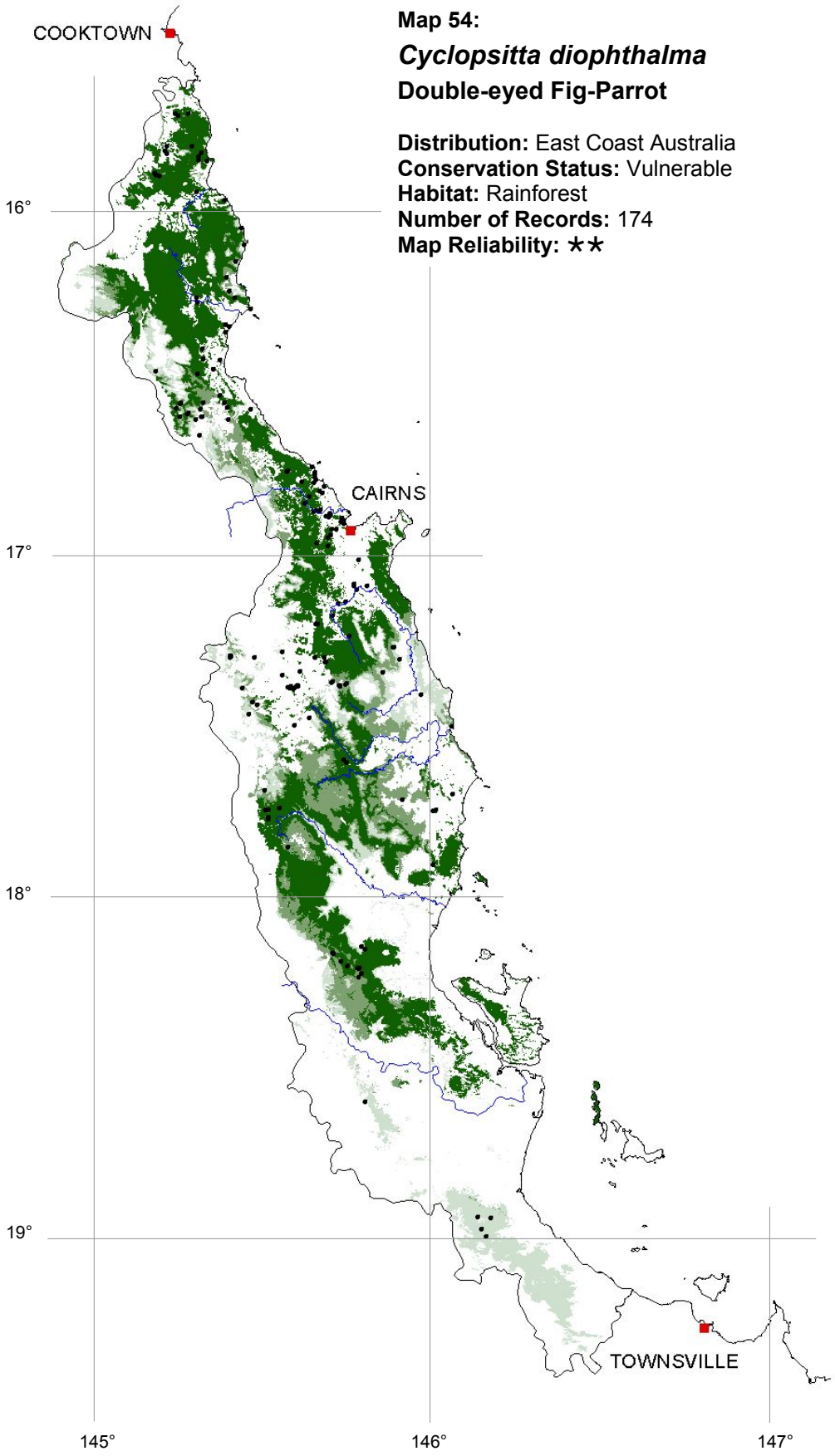


Map 53:

Alisterus scapularis

Australian King Parrot

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 250
Map Reliability: ★★★

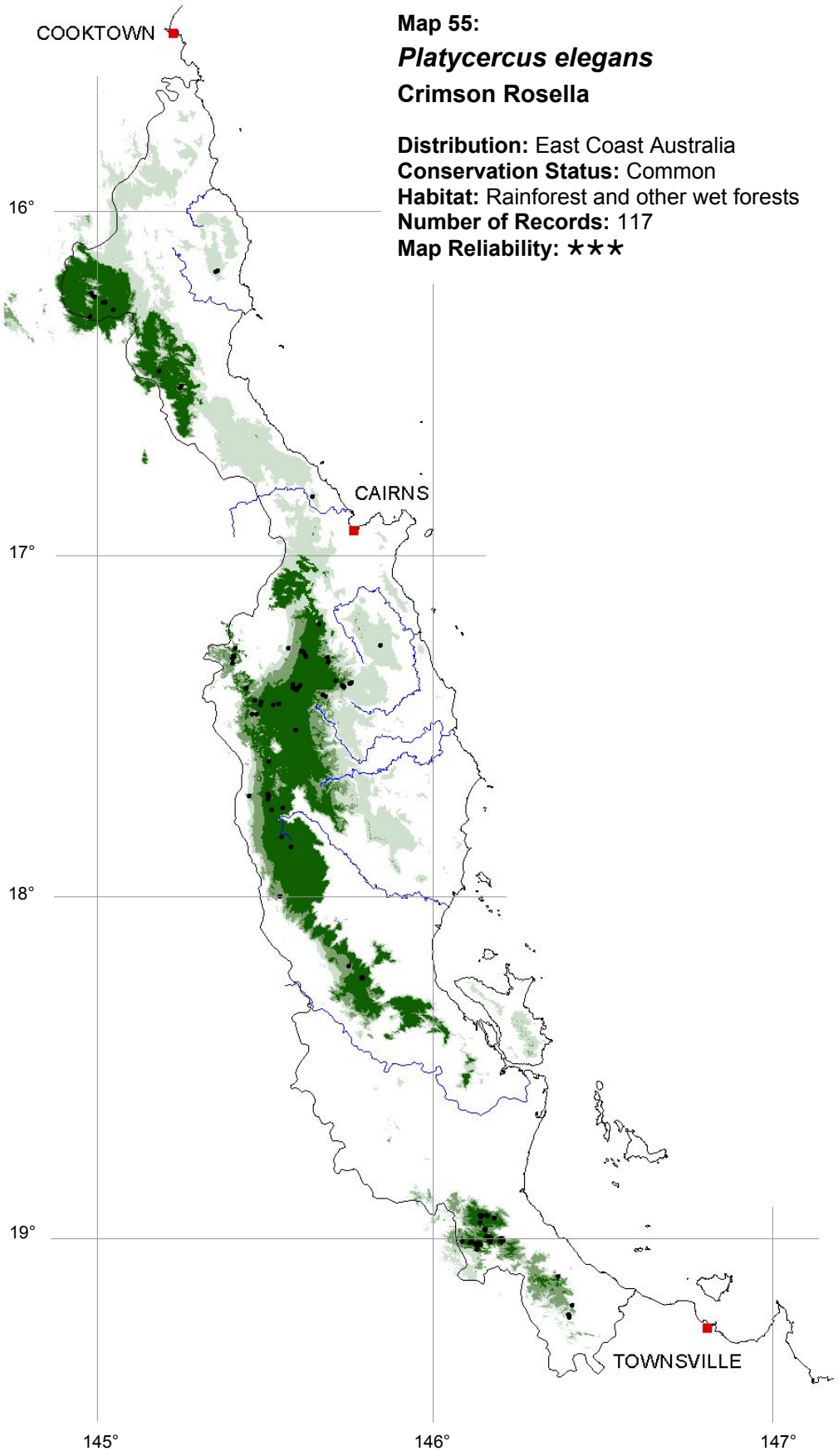


Map 54:

Cyclopsitta diophthalma

Double-eyed Fig-Parrot

Distribution: East Coast Australia
Conservation Status: Vulnerable
Habitat: Rainforest
Number of Records: 174
Map Reliability: ★★

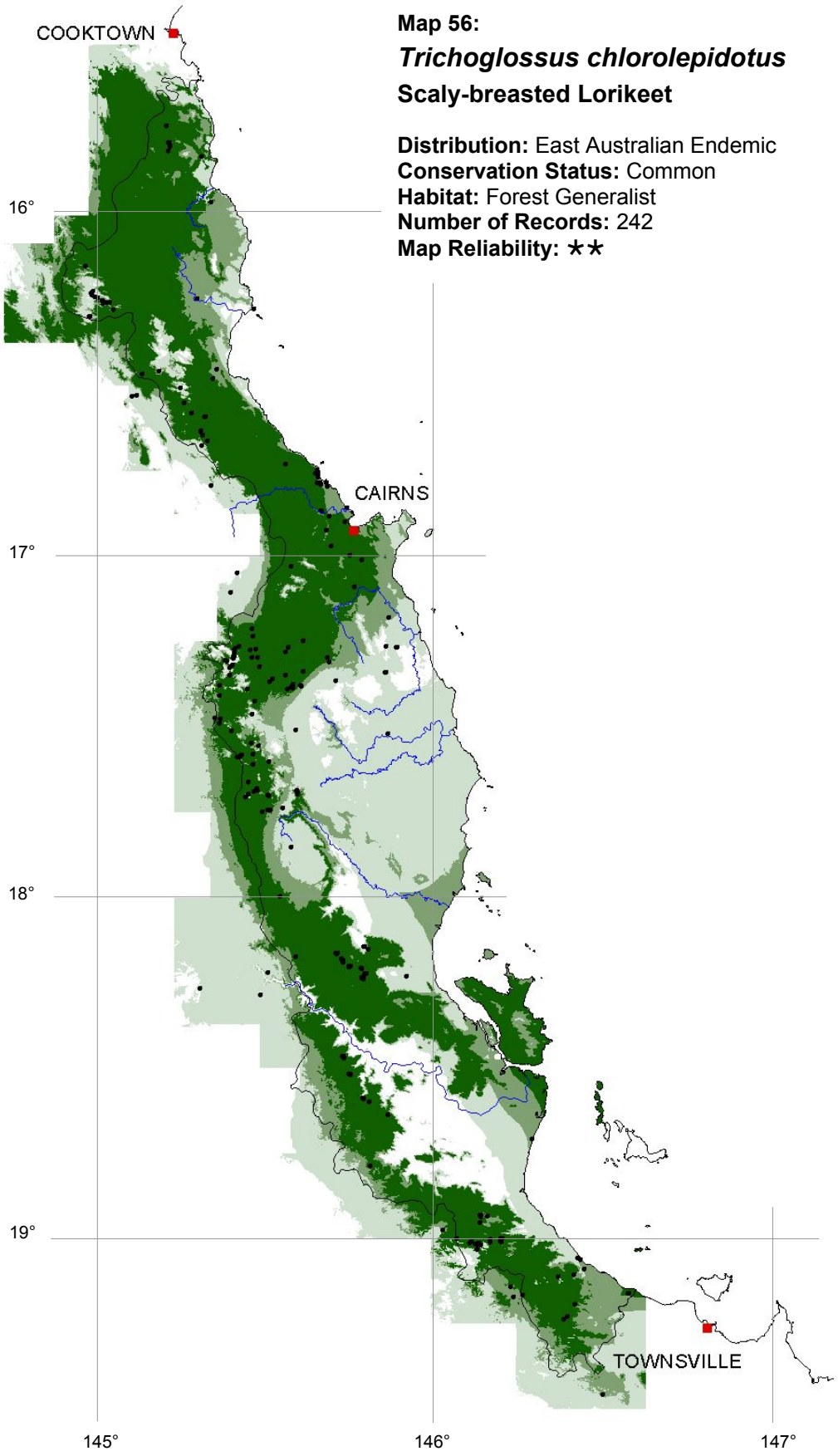


Map 55:

Platycercus elegans

Crimson Rosella

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 117
Map Reliability: ★★★

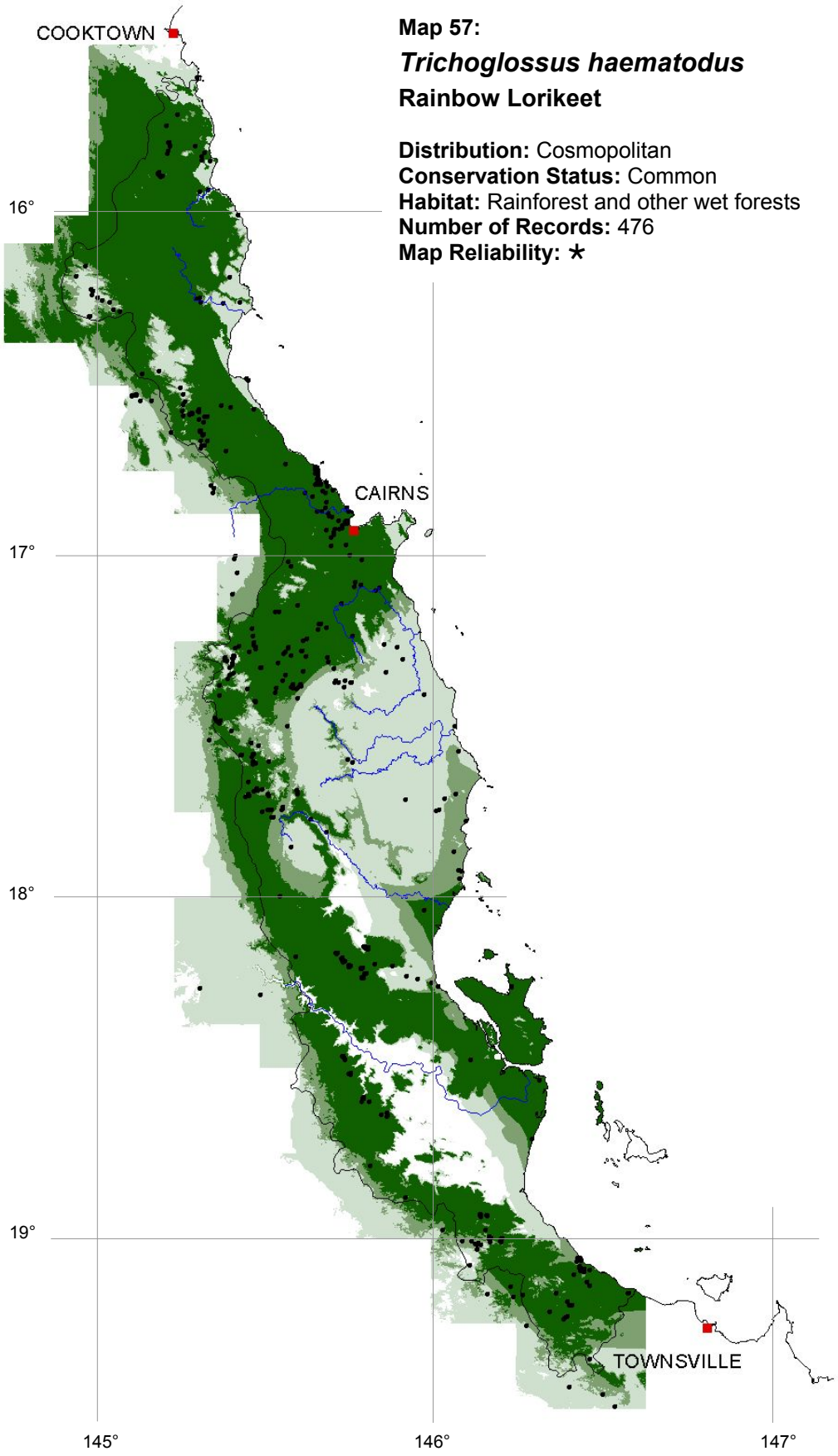


Map 56:

Trichoglossus chlorolepidotus

Scaly-breasted Lorikeet

Distribution: East Australian Endemic
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 242
Map Reliability: ★★

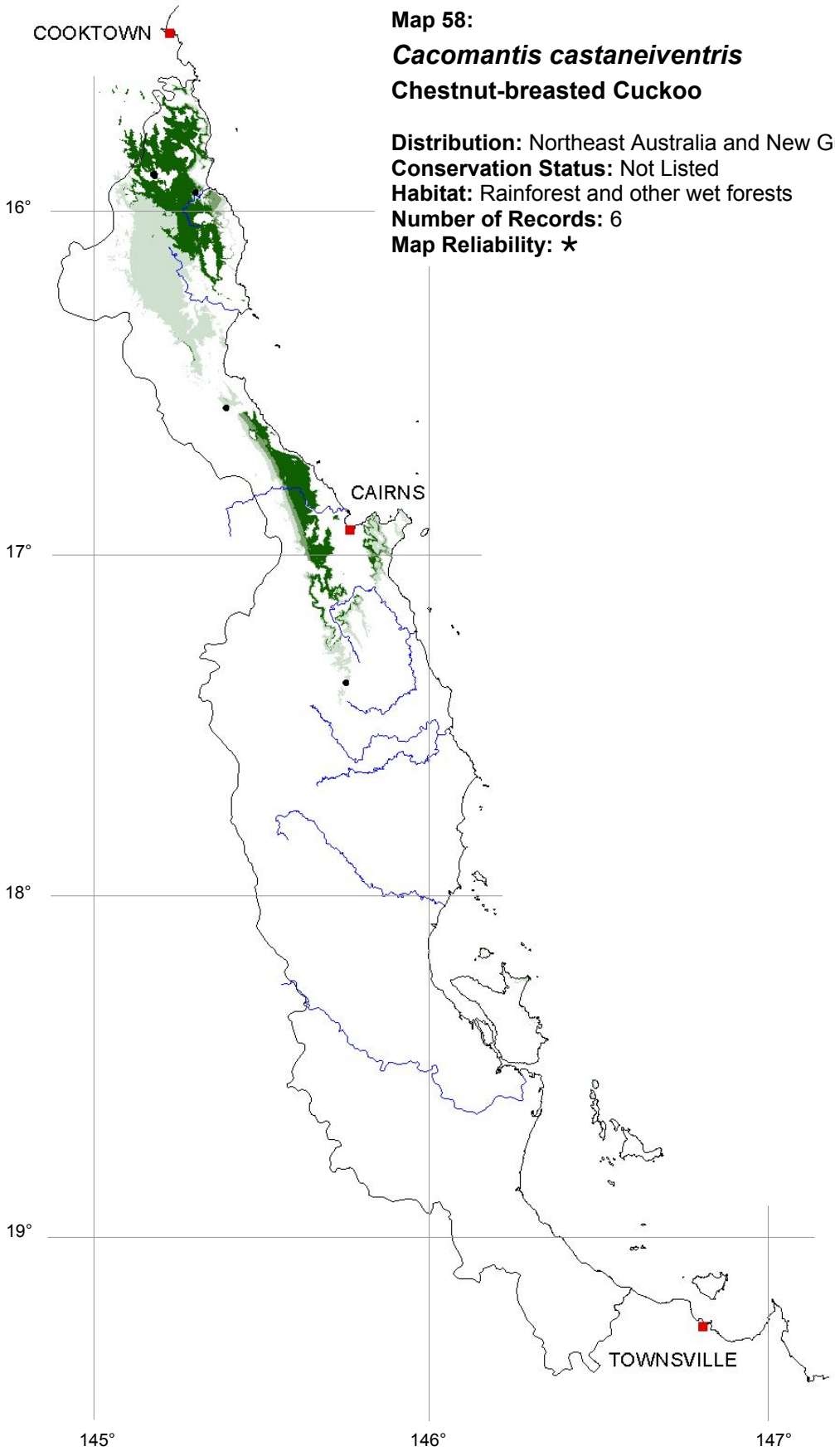


Map 57:

Trichoglossus haematodus

Rainbow Lorikeet

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 476
Map Reliability: ★

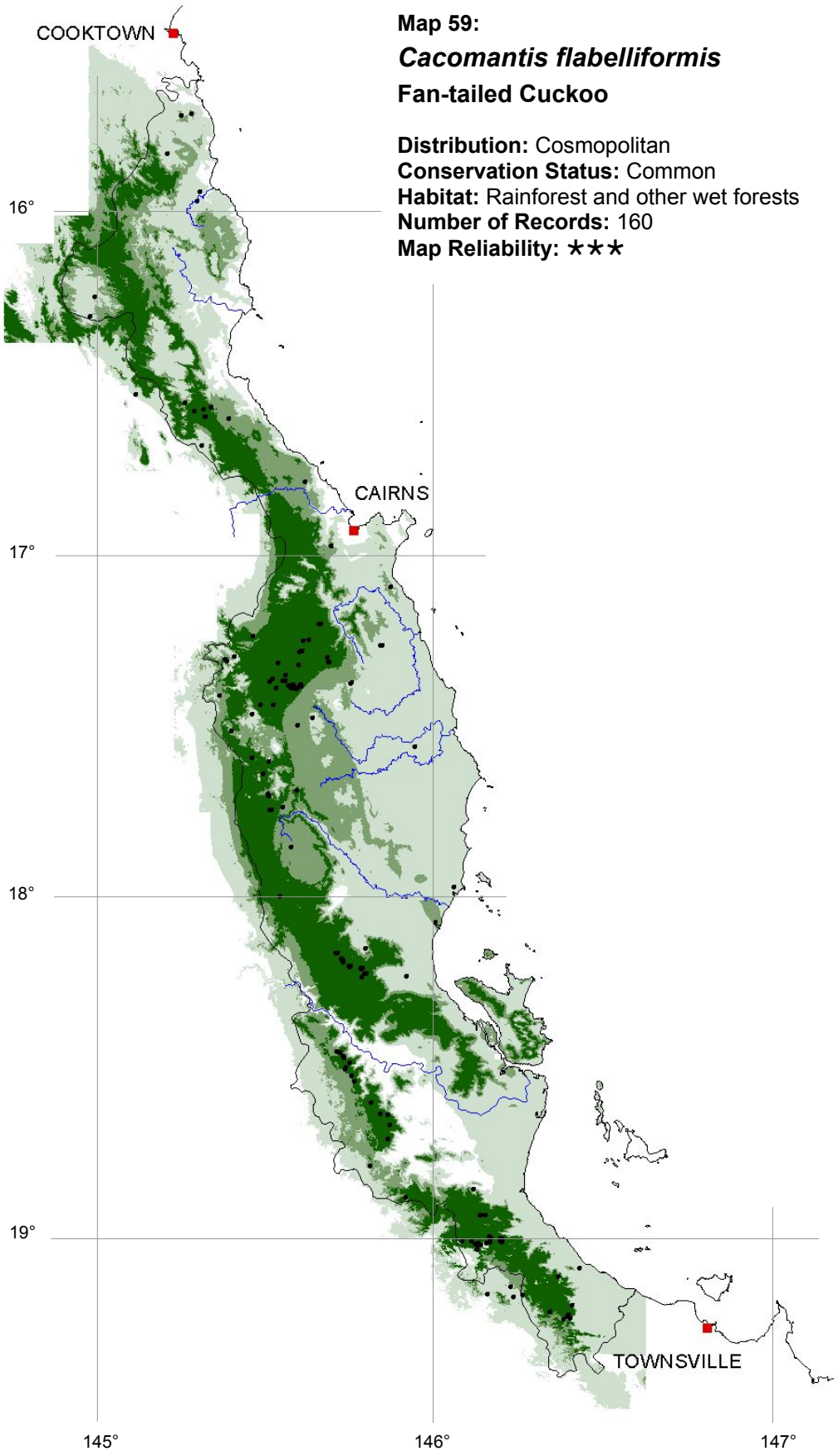


Map 58:

Cacomantis castaneiventris

Chestnut-breasted Cuckoo

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest and other wet forests
Number of Records: 6
Map Reliability: ★

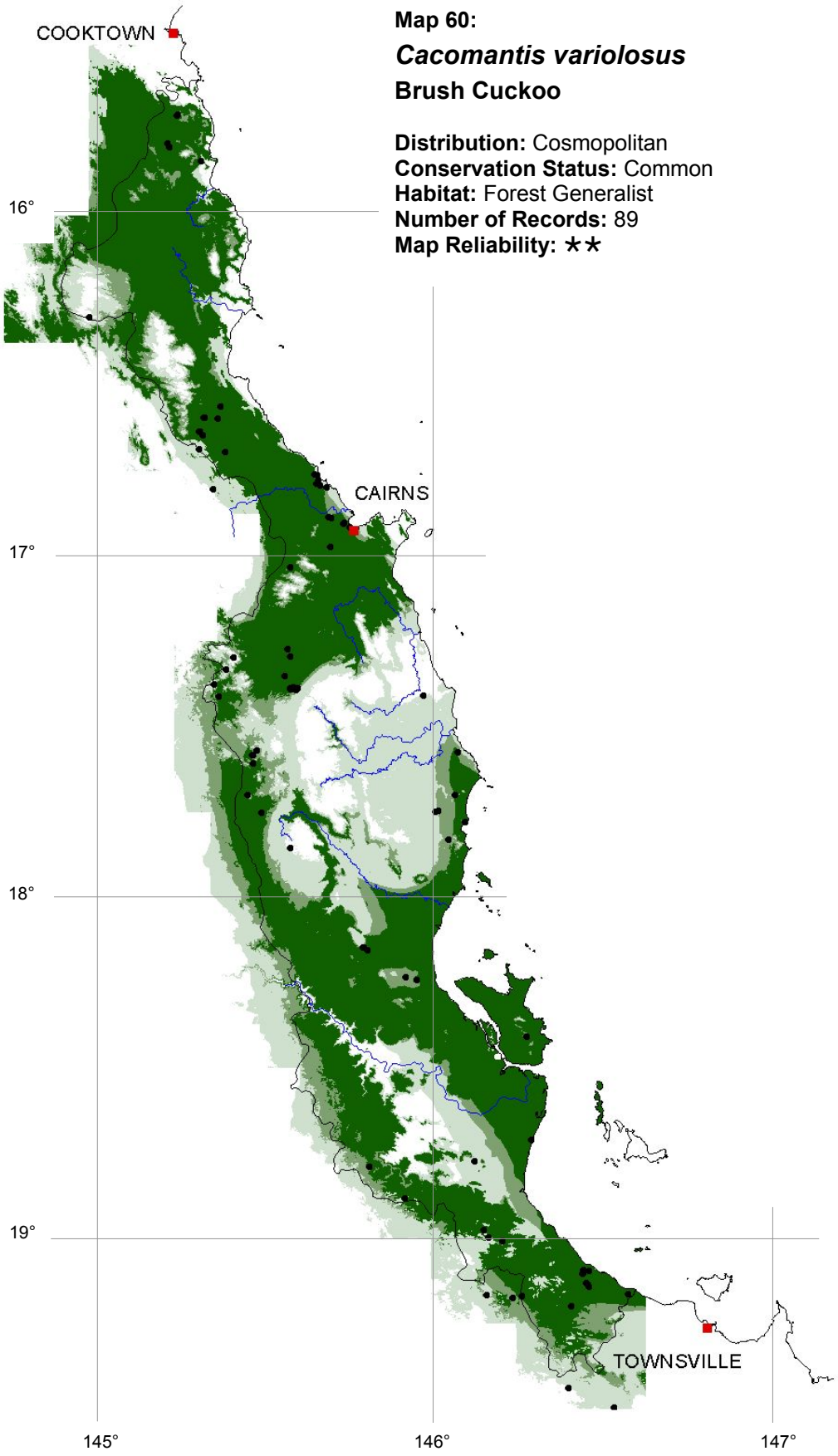


Map 59:

Cacomantis flabelliformis

Fan-tailed Cuckoo

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 160
Map Reliability: ★★★

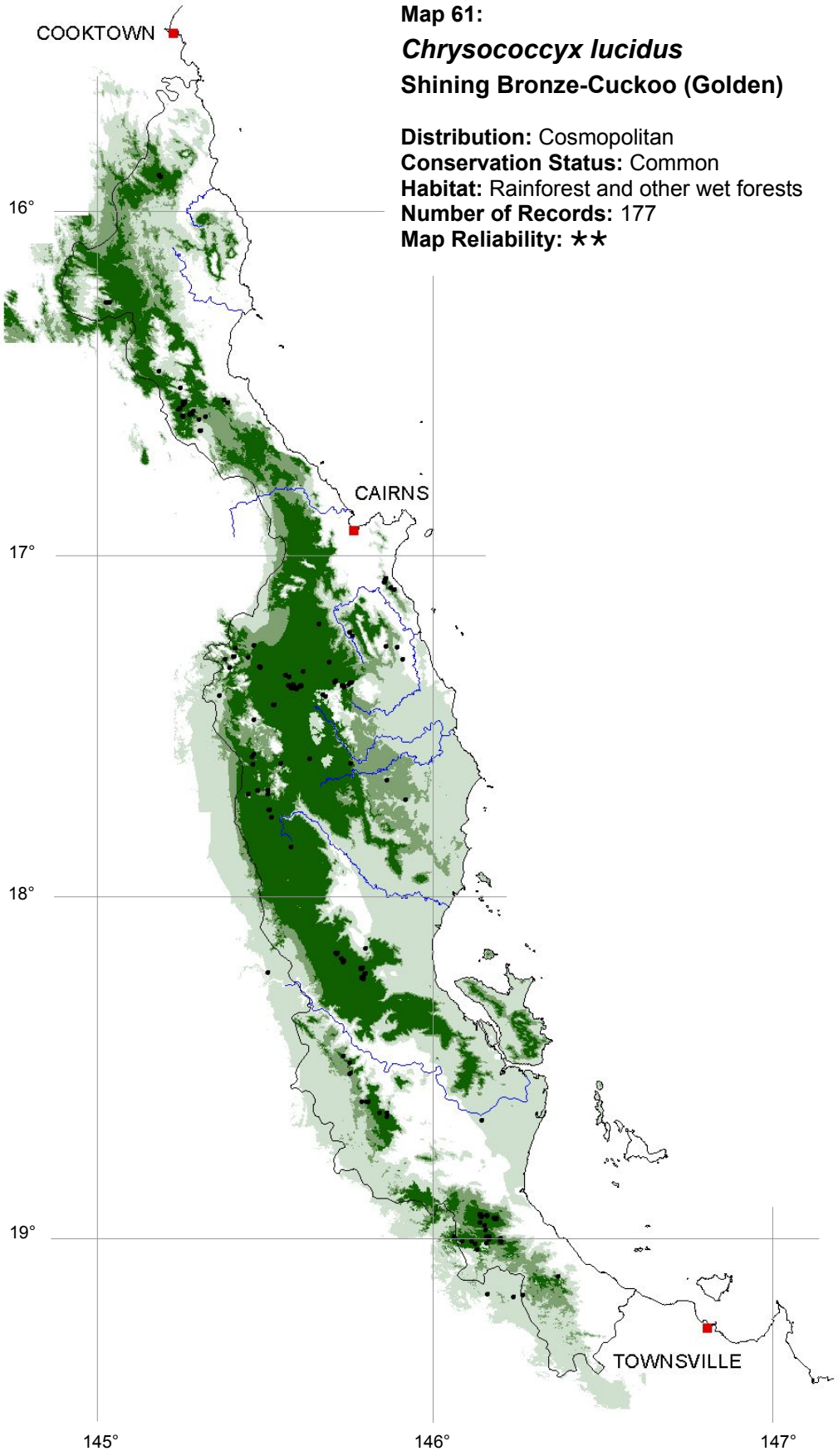


Map 60:

Cacomantis variolosus

Brush Cuckoo

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 89
Map Reliability: ★★

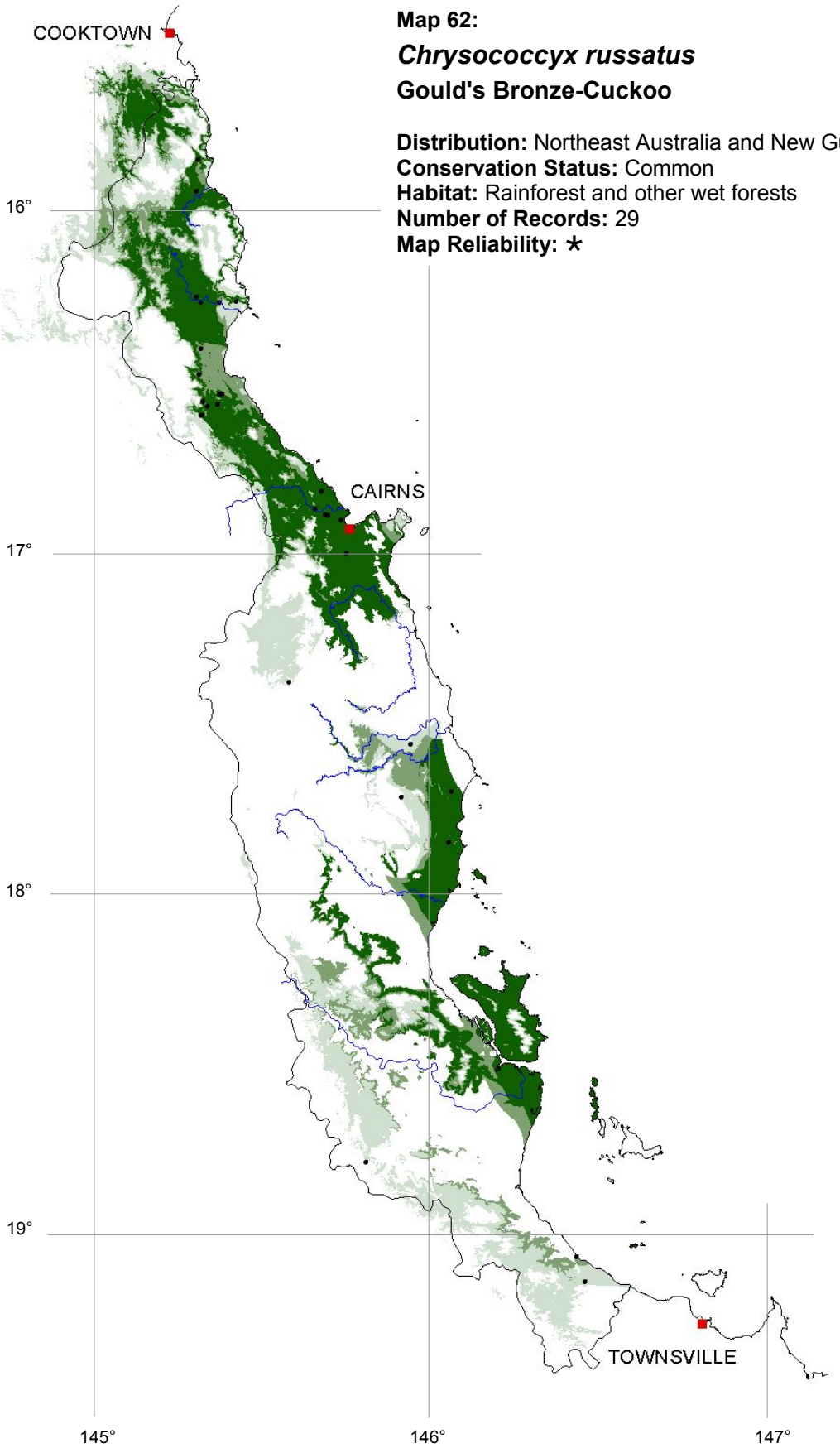


Map 61:

Chrysococcyx lucidus

Shining Bronze-Cuckoo (Golden)

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 177
Map Reliability: ★★

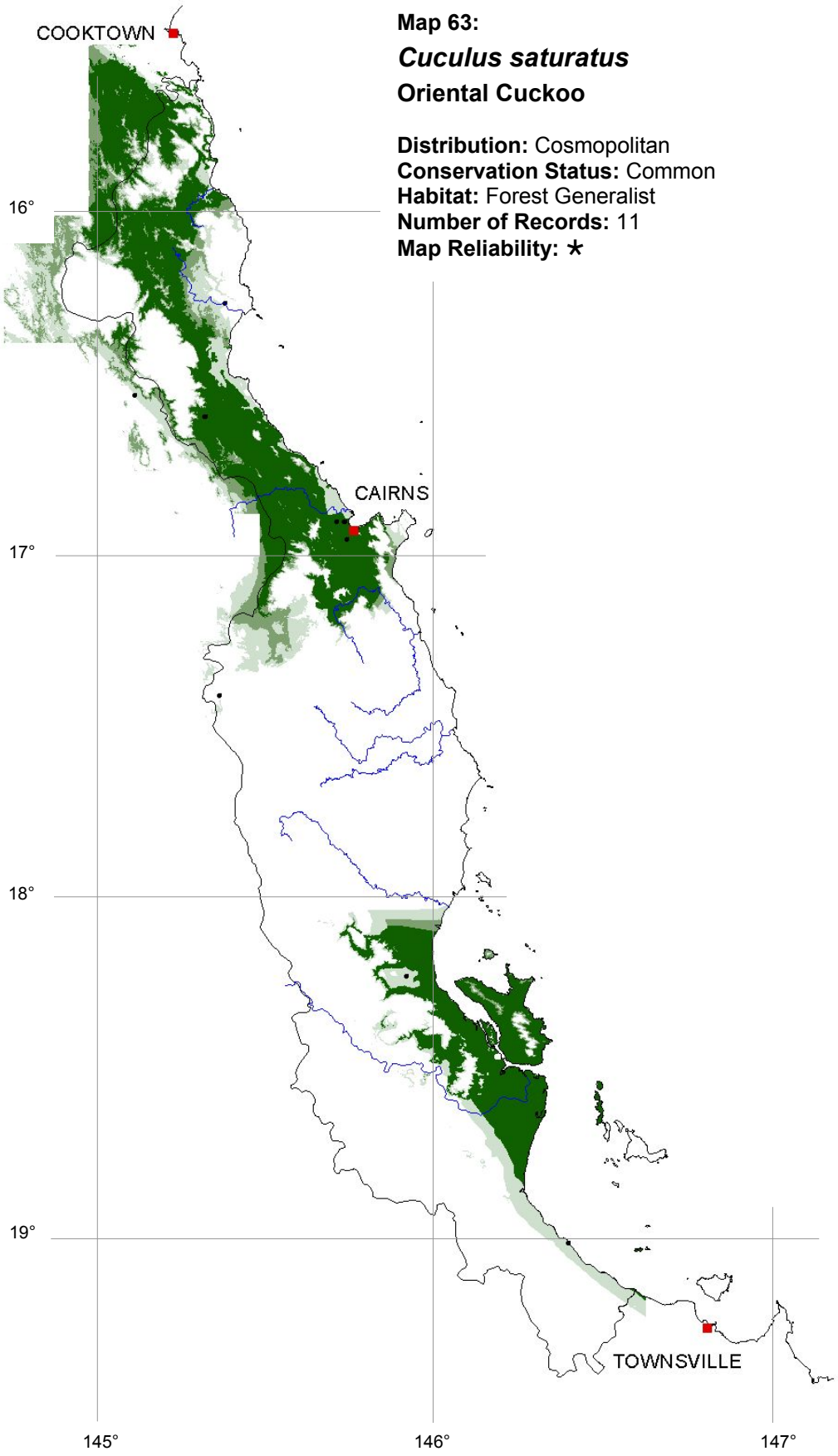


Map 62:

Chrysococcyx russatus

Gould's Bronze-Cuckoo

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 29
Map Reliability: ★

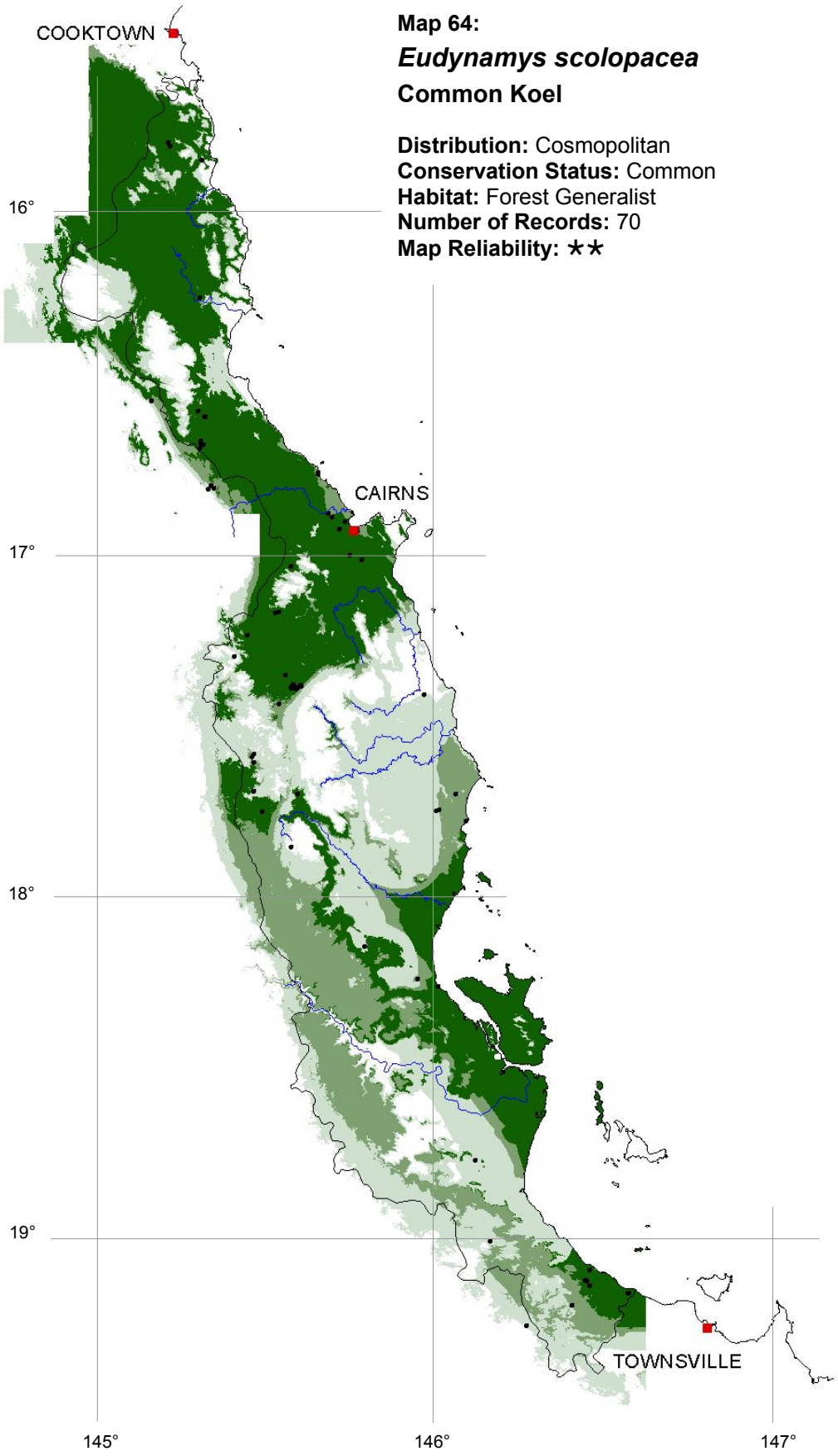


Map 63:

Cuculus saturatus

Oriental Cuckoo

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 11
Map Reliability: ★

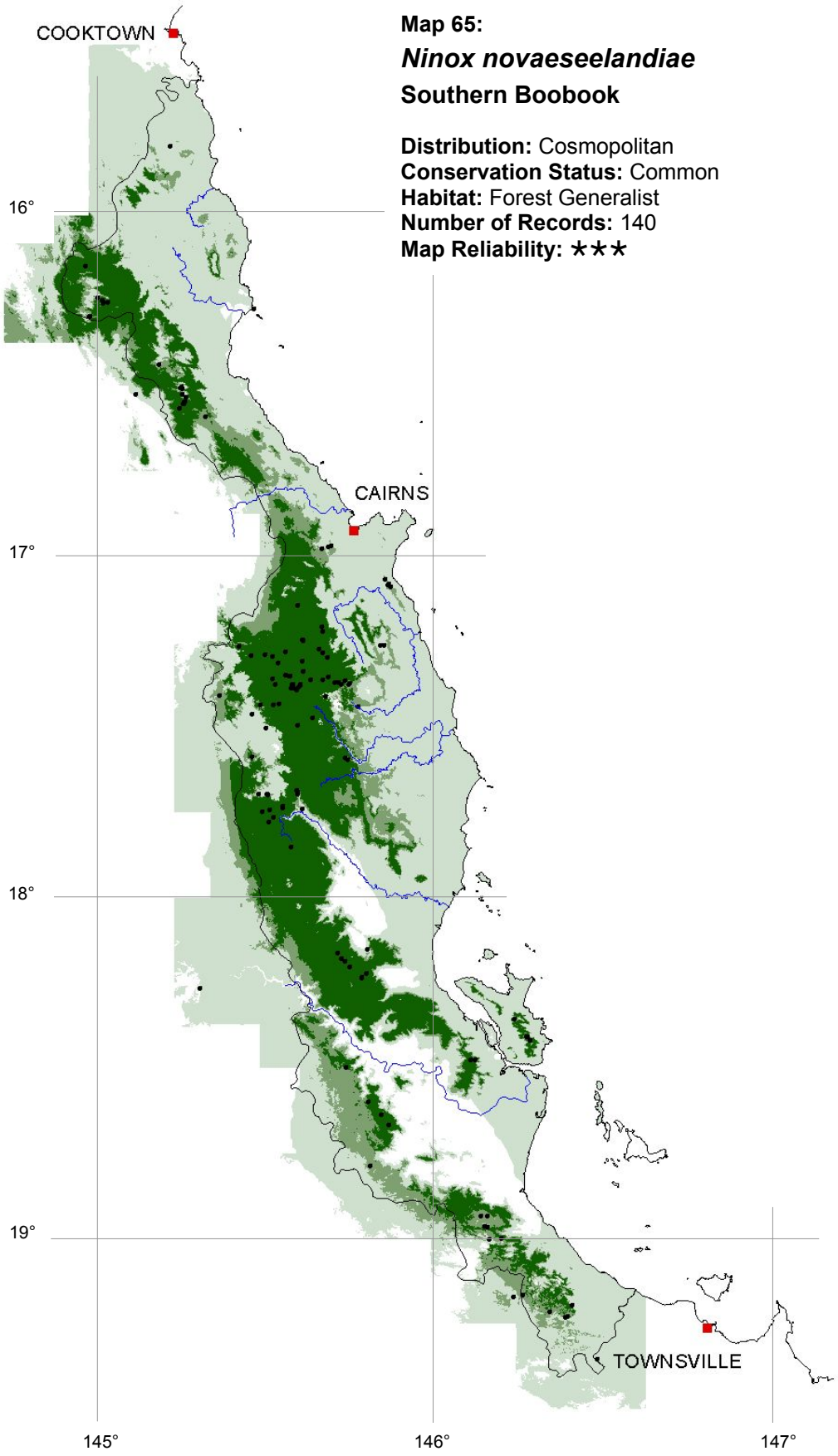


Map 64:

Eudynamys scolopacea

Common Koel

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 70
Map Reliability: ★★

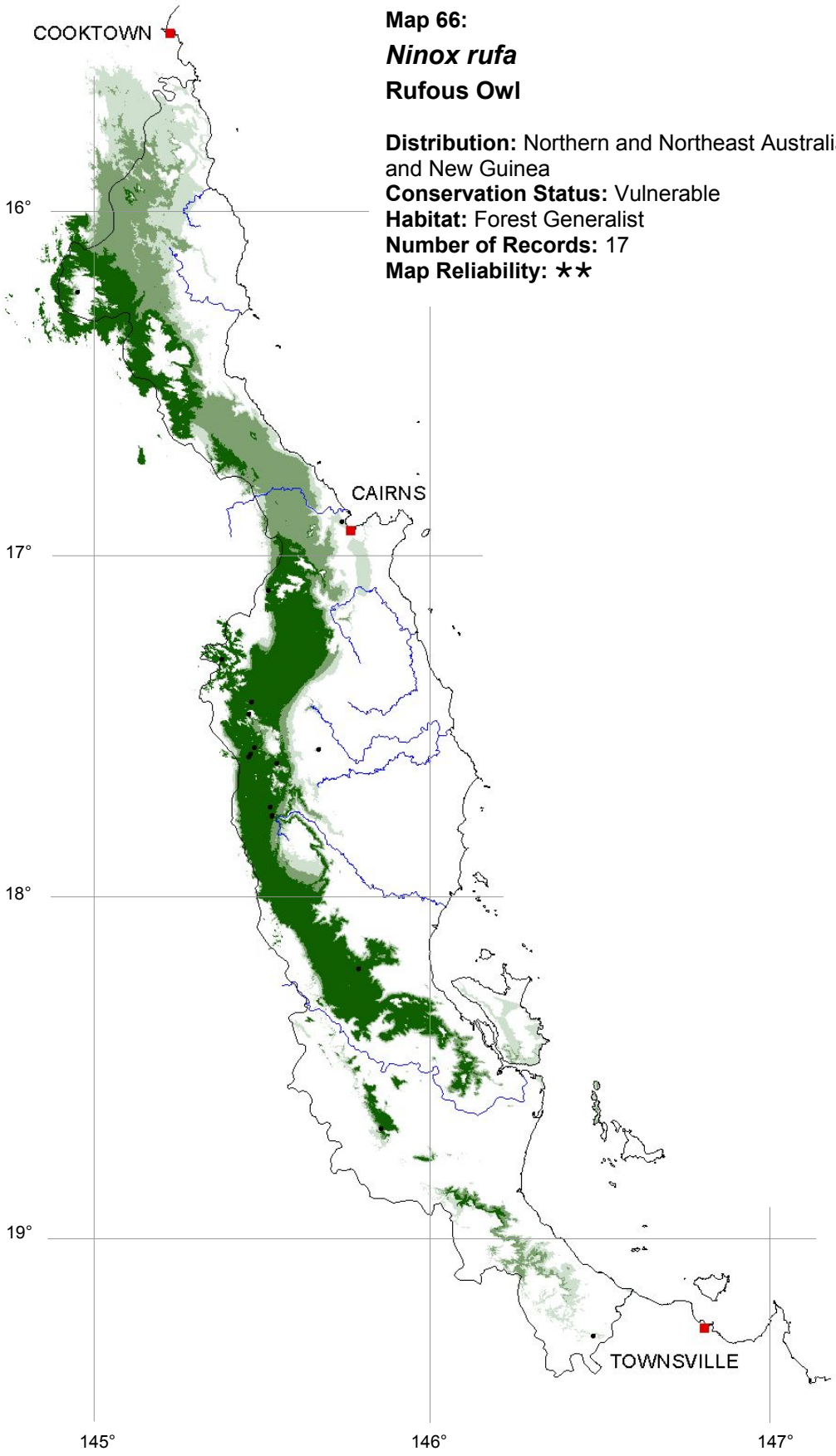


Map 65:

Ninox novaeseelandiae

Southern Boobook

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 140
Map Reliability: ★★★

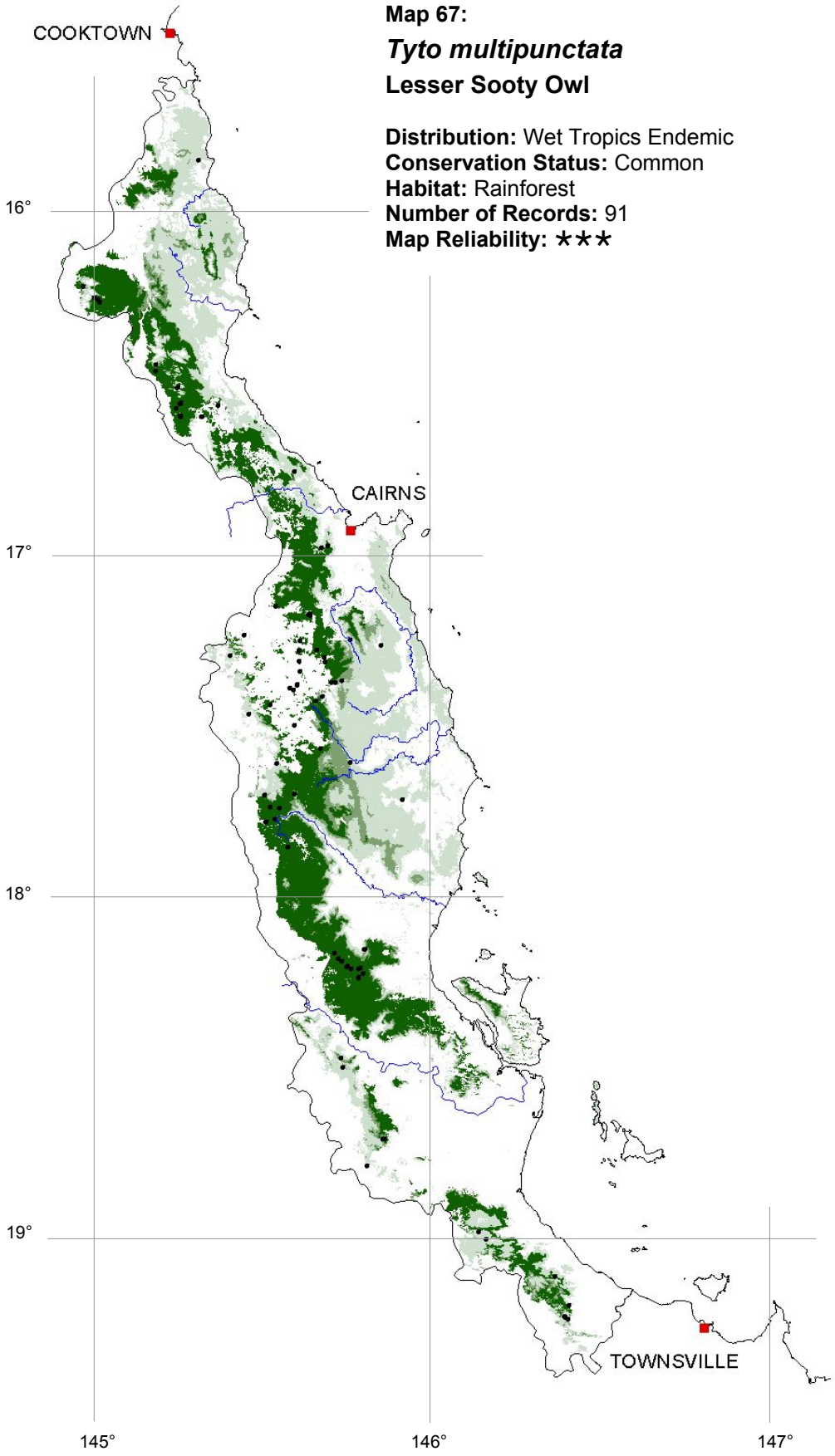


Map 66:

Ninox rufa

Rufous Owl

Distribution: Northern and Northeast Australia and New Guinea
Conservation Status: Vulnerable
Habitat: Forest Generalist
Number of Records: 17
Map Reliability: ★★

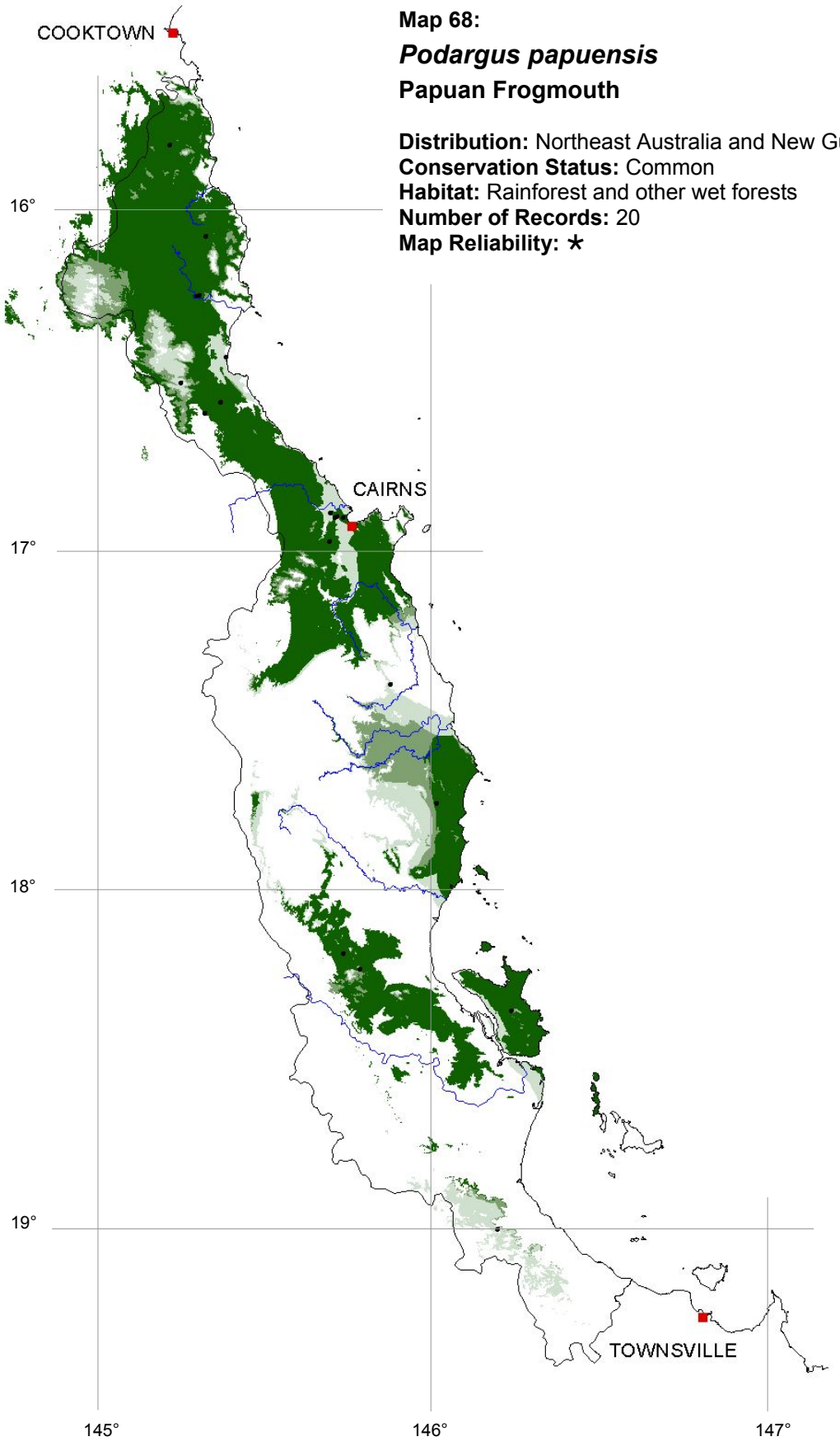


Map 67:

Tyto multipunctata

Lesser Sooty Owl

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 91
Map Reliability: ★★★

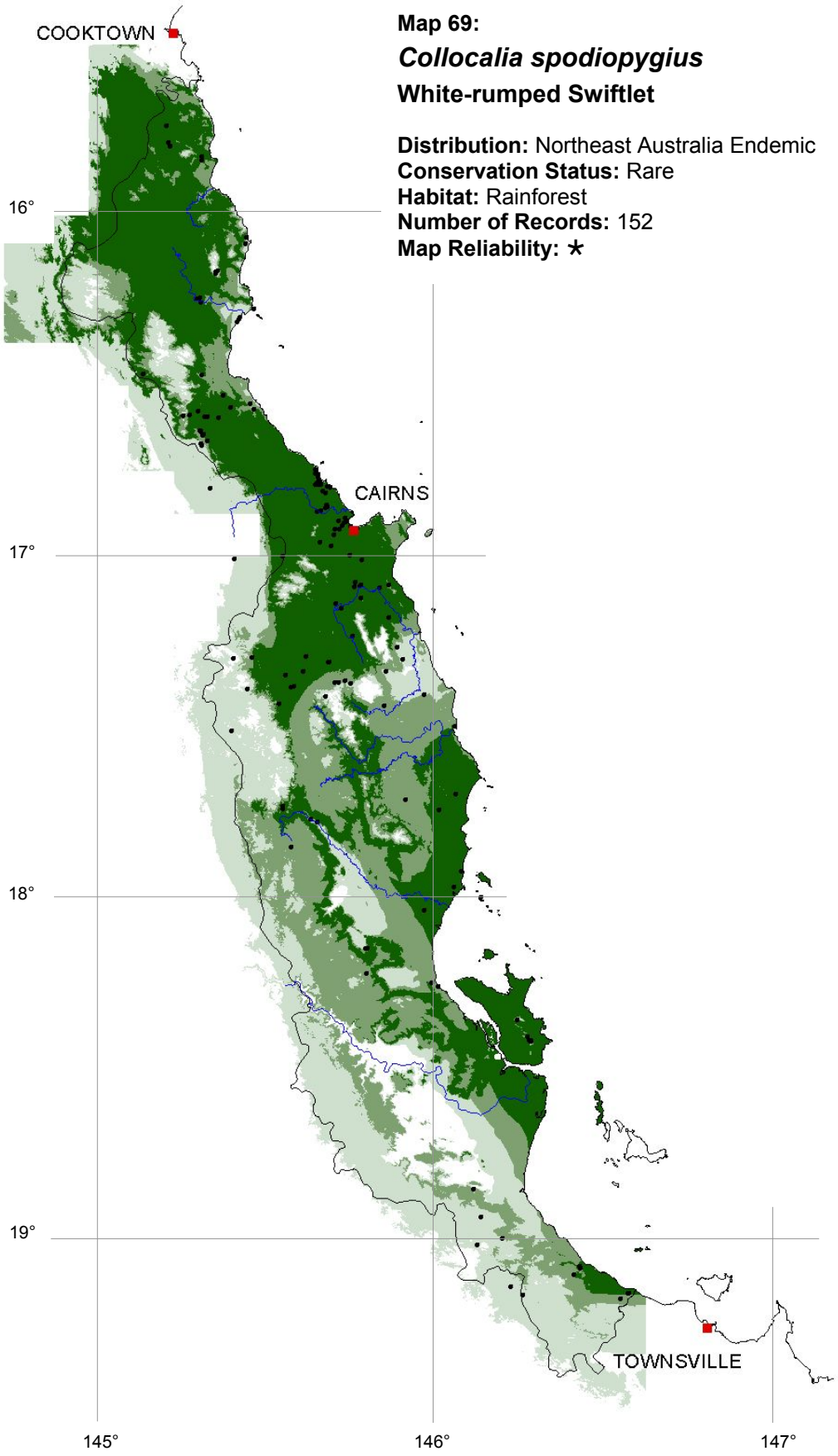


Map 68:

Podargus papuensis

Papuan Frogmouth

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 20
Map Reliability: ★

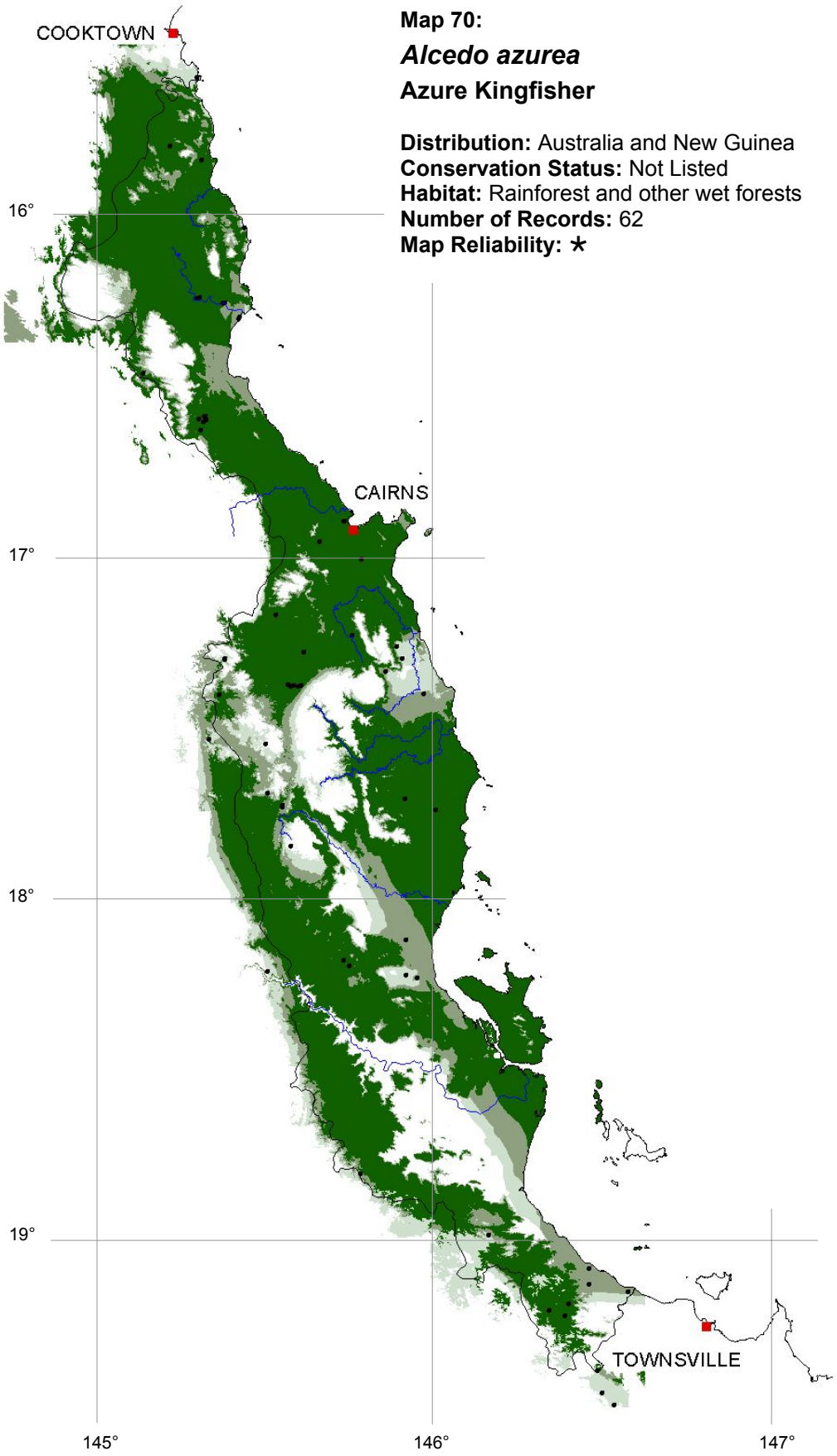


Map 69:

Collocalia spodiopygius

White-rumped Swiftlet

Distribution: Northeast Australia Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 152
Map Reliability: ★

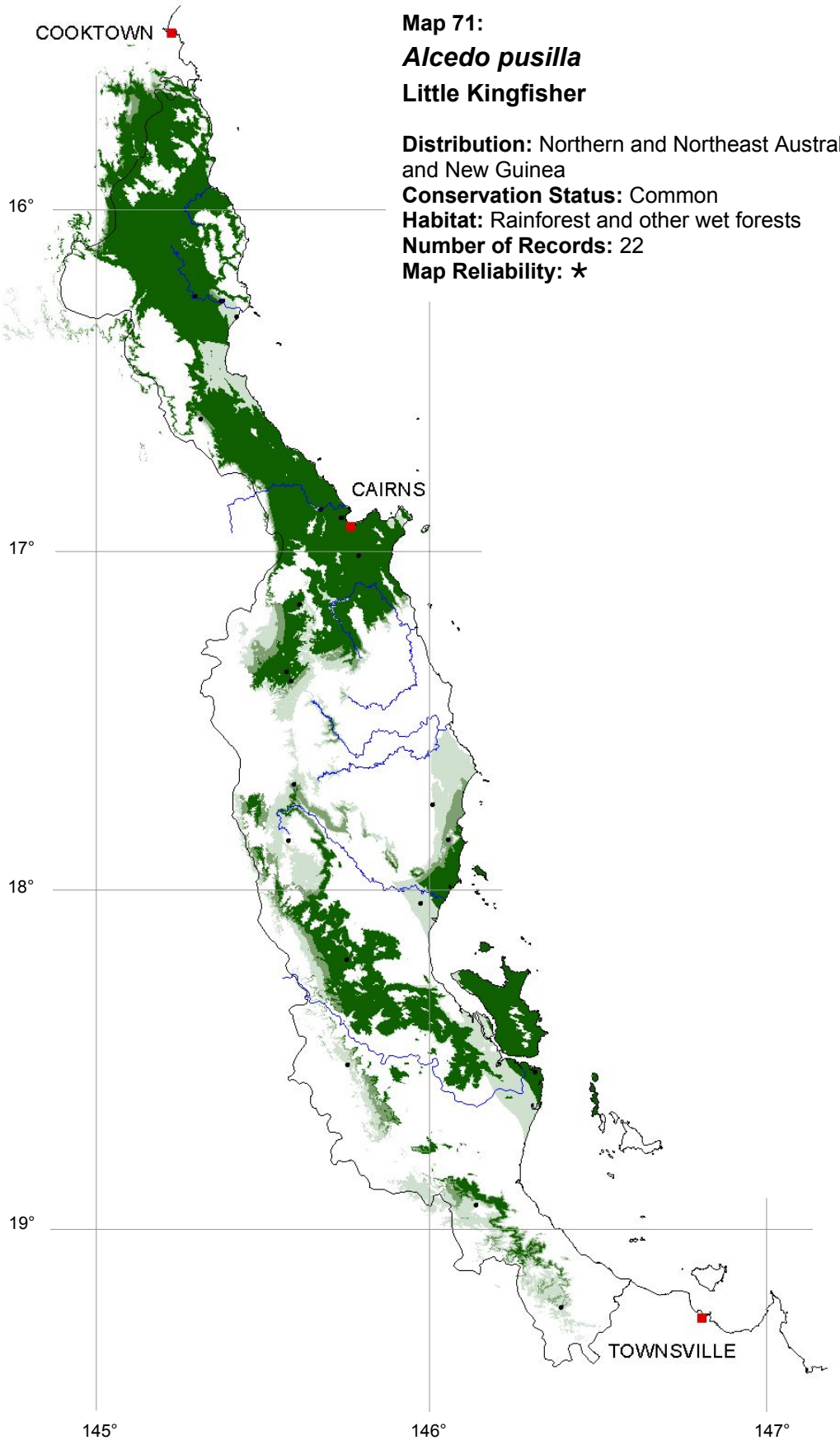


Map 70:

Alcedo azurea

Azure Kingfisher

Distribution: Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest and other wet forests
Number of Records: 62
Map Reliability: ✶

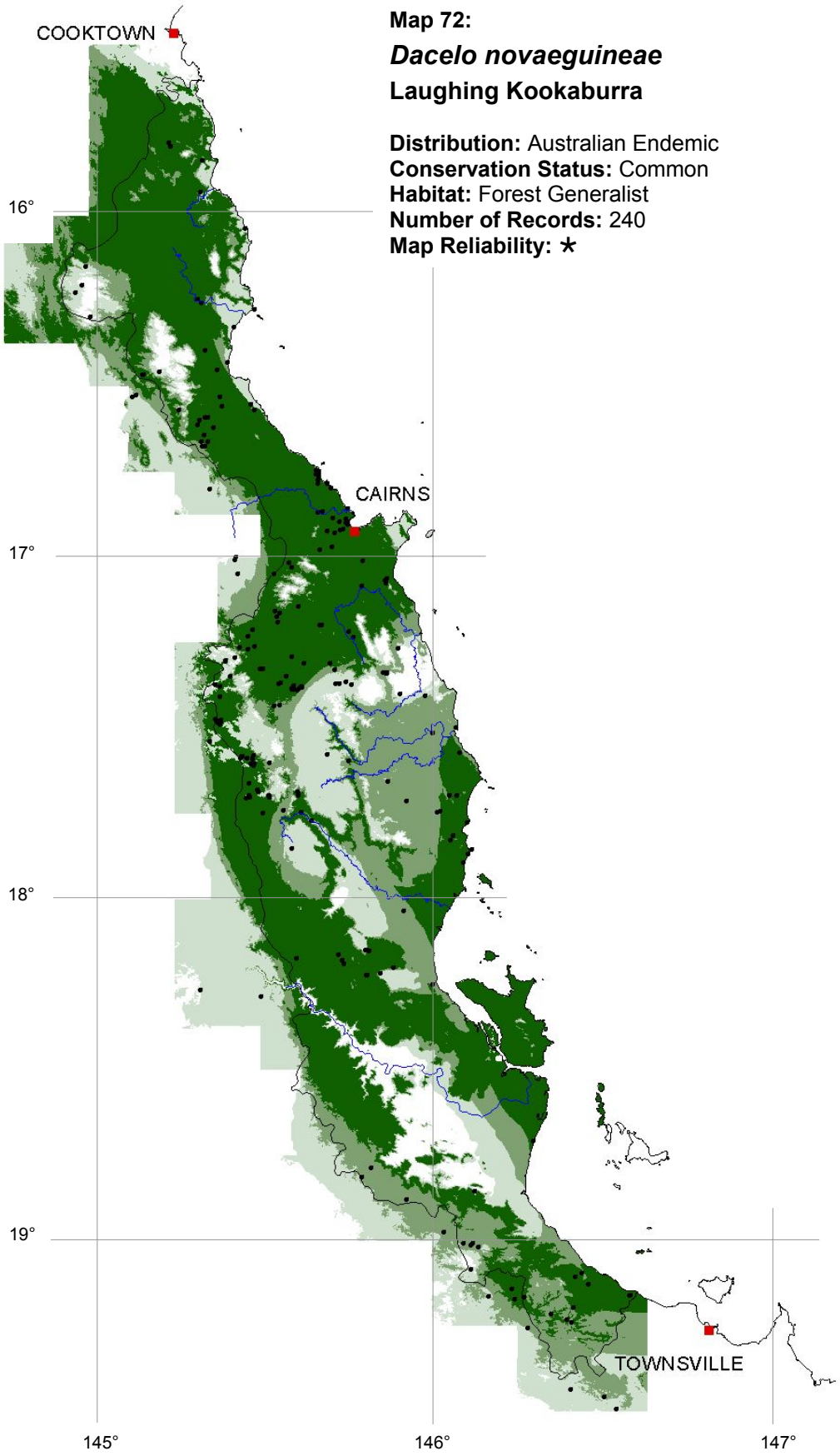


Map 71:

Alcedo pusilla

Little Kingfisher

Distribution: Northern and Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 22
Map Reliability: ✶

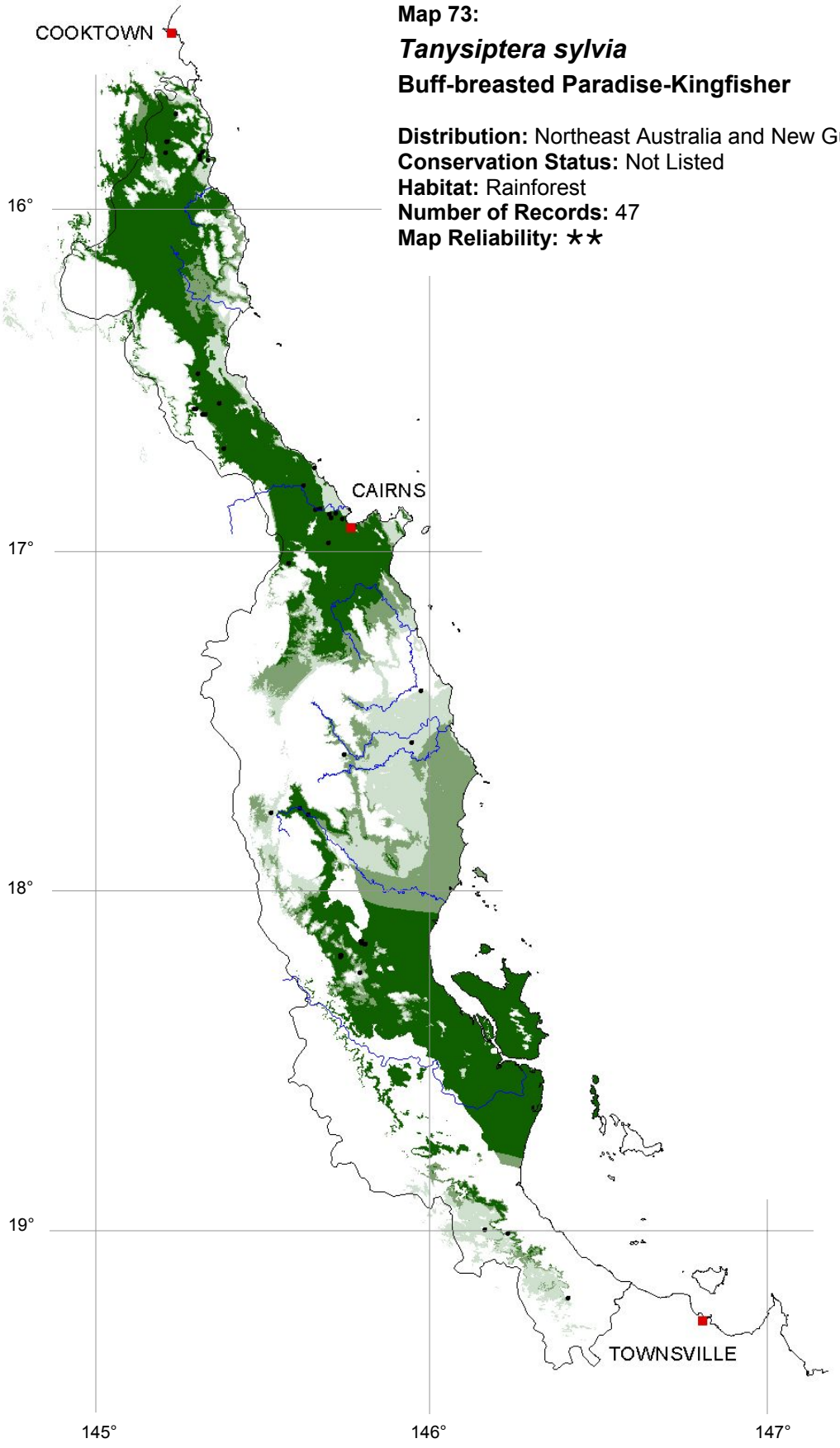


Map 72:

Dacelo novaeguineae

Laughing Kookaburra

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 240
Map Reliability: ✶

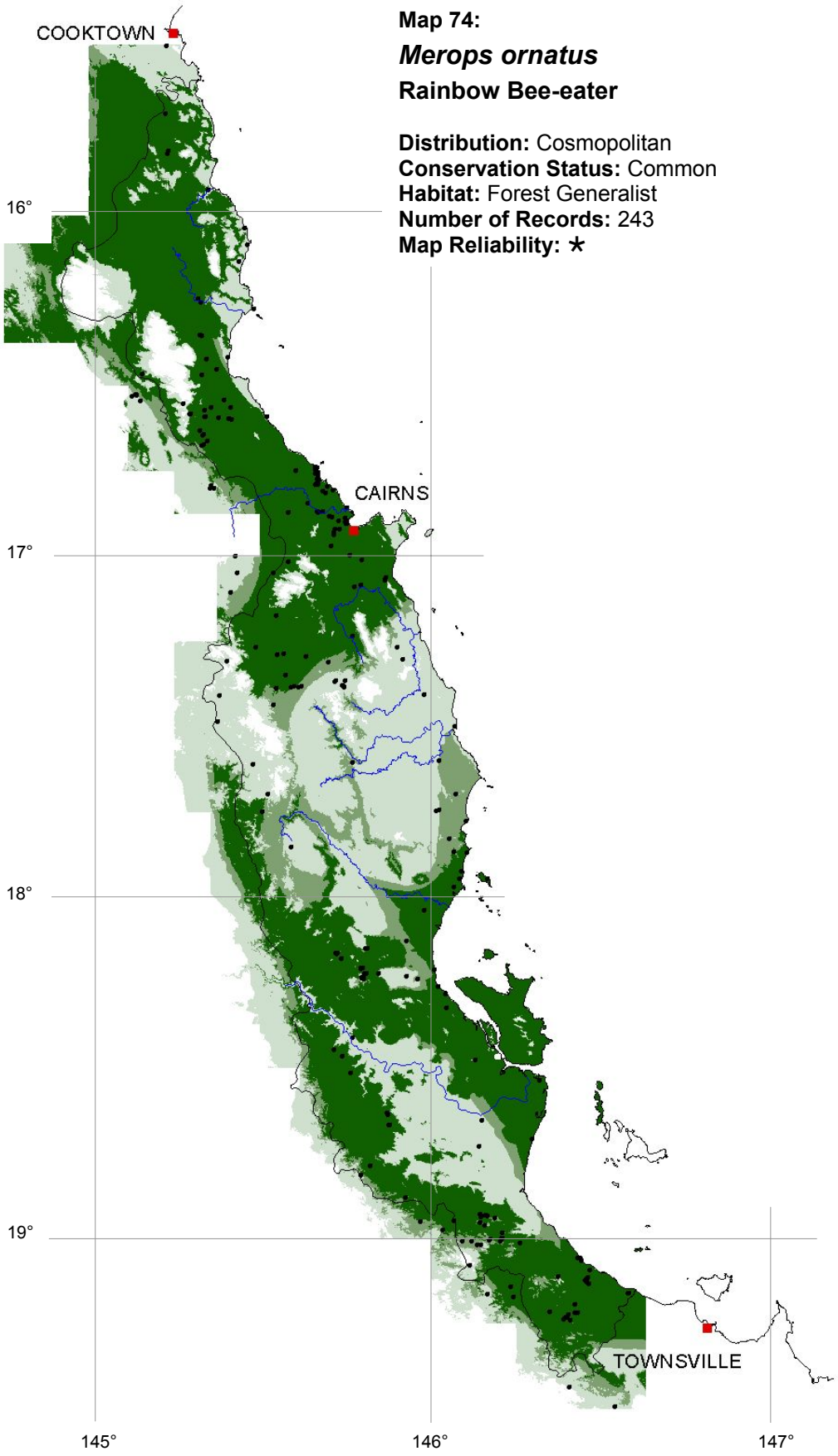


Map 73:

Tanysiptera sylvia

Buff-breasted Paradise-Kingfisher

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 47
Map Reliability: ★★

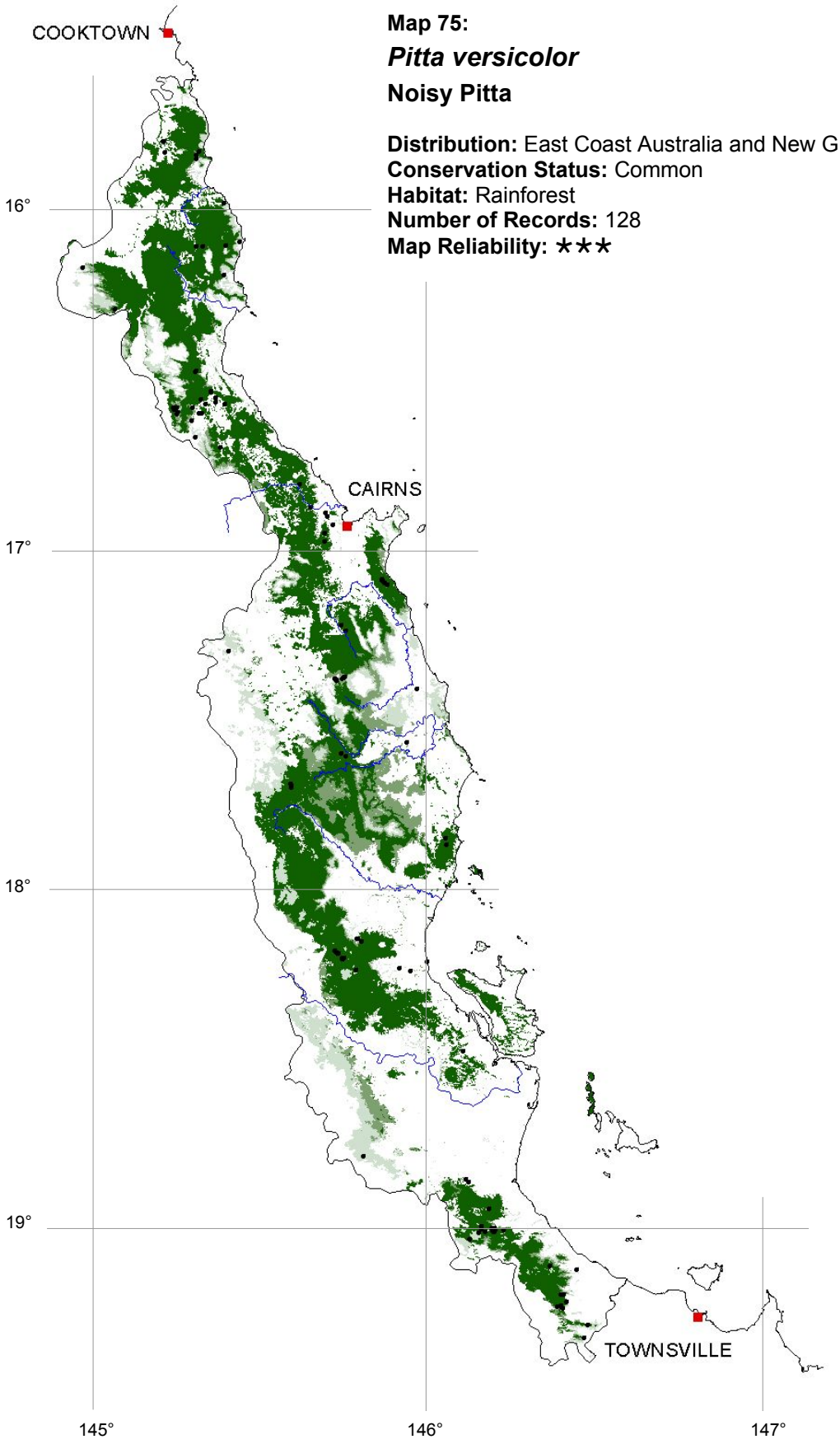


Map 74:

Merops ornatus

Rainbow Bee-eater

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 243
Map Reliability: ★

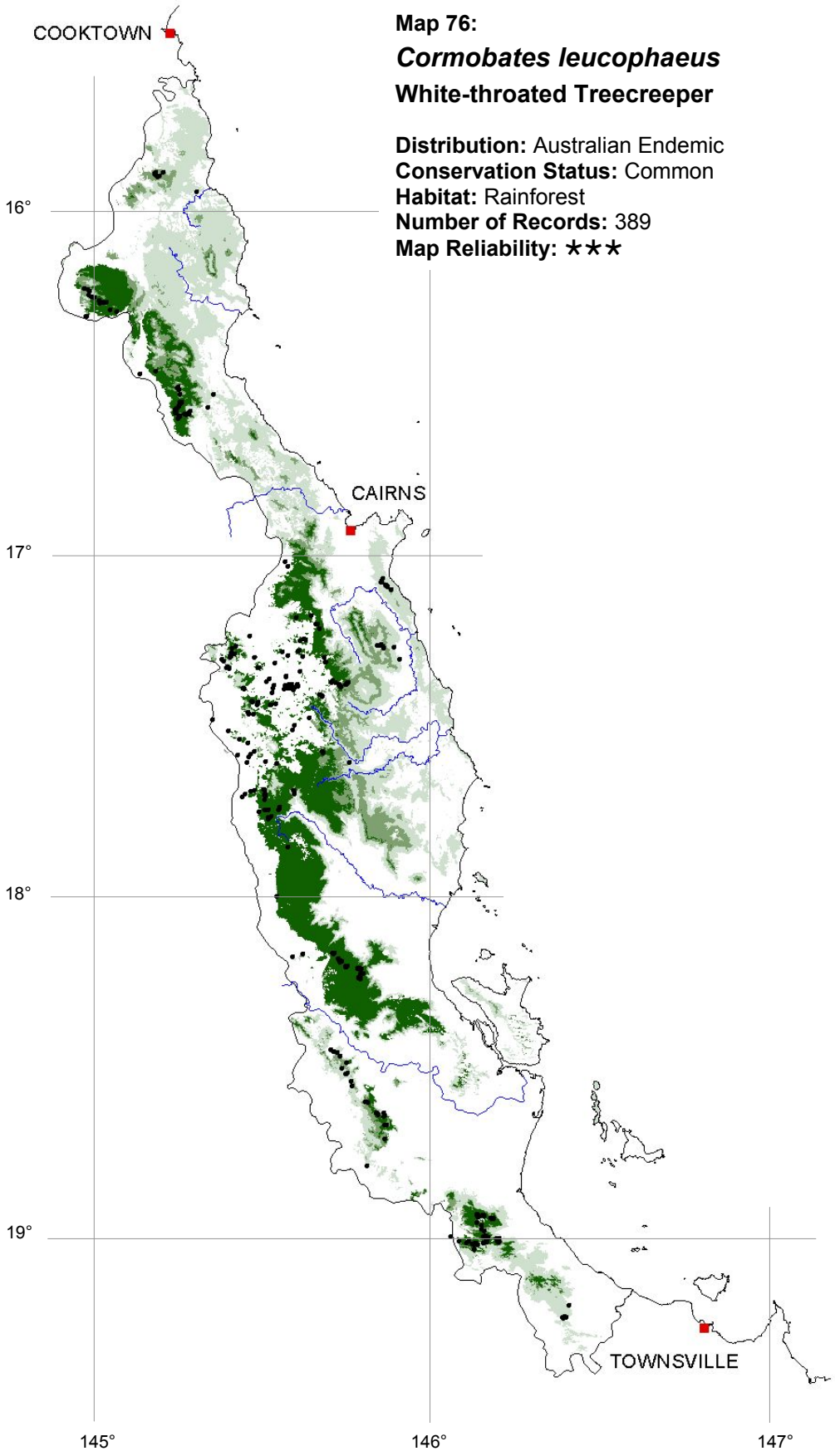


Map 75:

Pitta versicolor

Noisy Pitta

Distribution: East Coast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 128
Map Reliability: ★★★

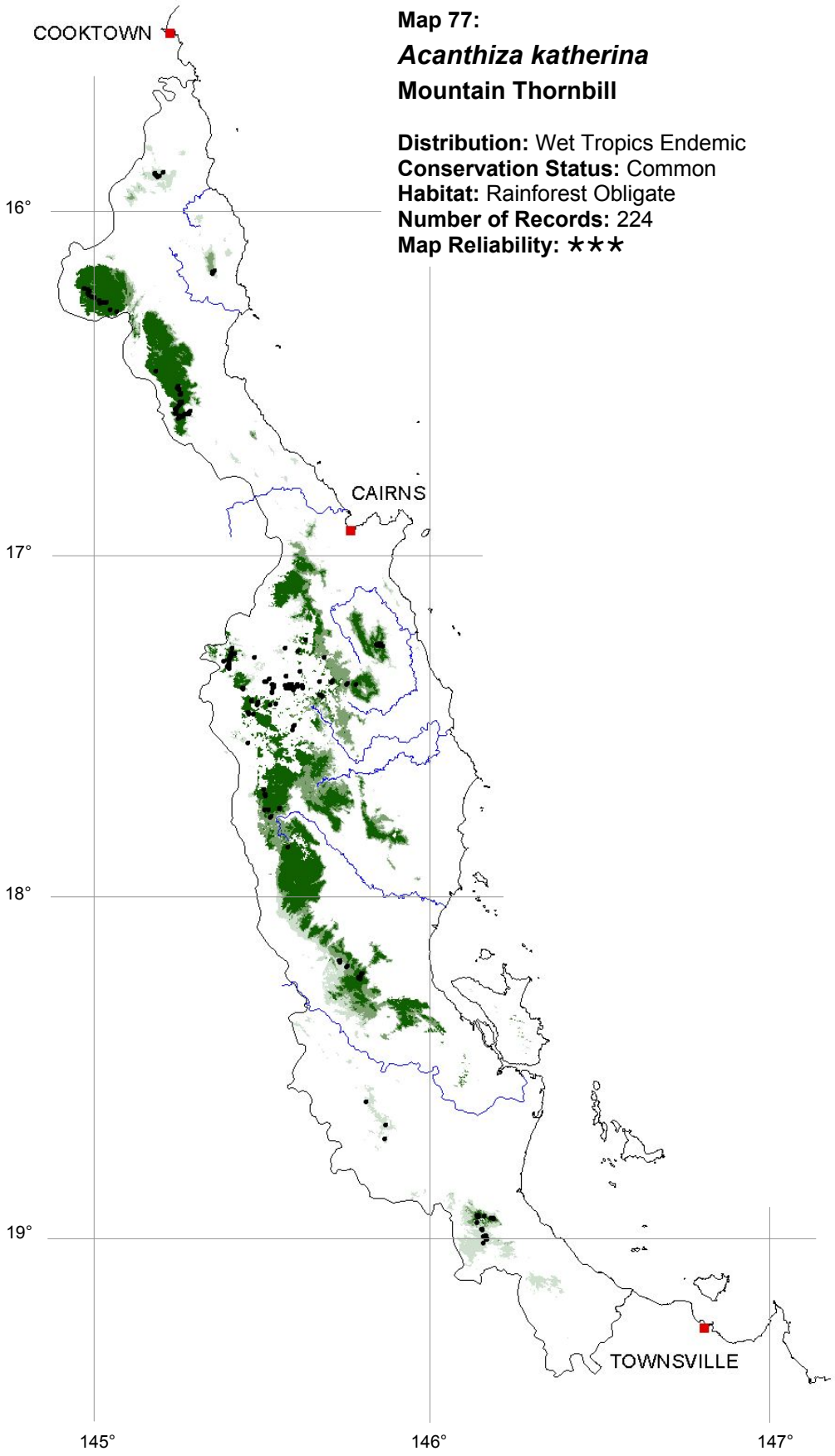


Map 76:

Cormobates leucophaeus

White-throated Treecreeper

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 389
Map Reliability: ★★★

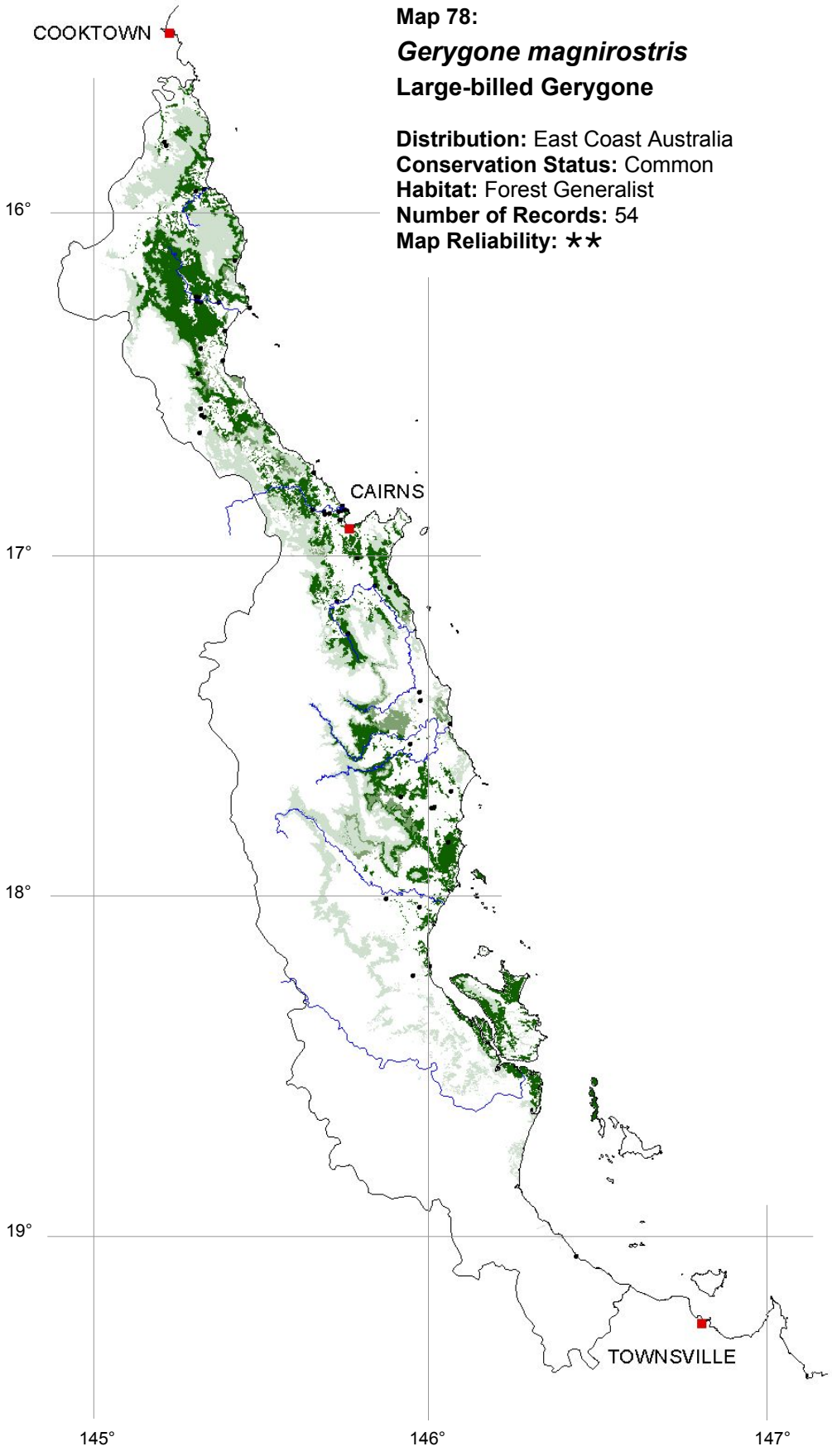


Map 77:

Acanthiza katherina

Mountain Thornbill

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 224
Map Reliability: ★★★

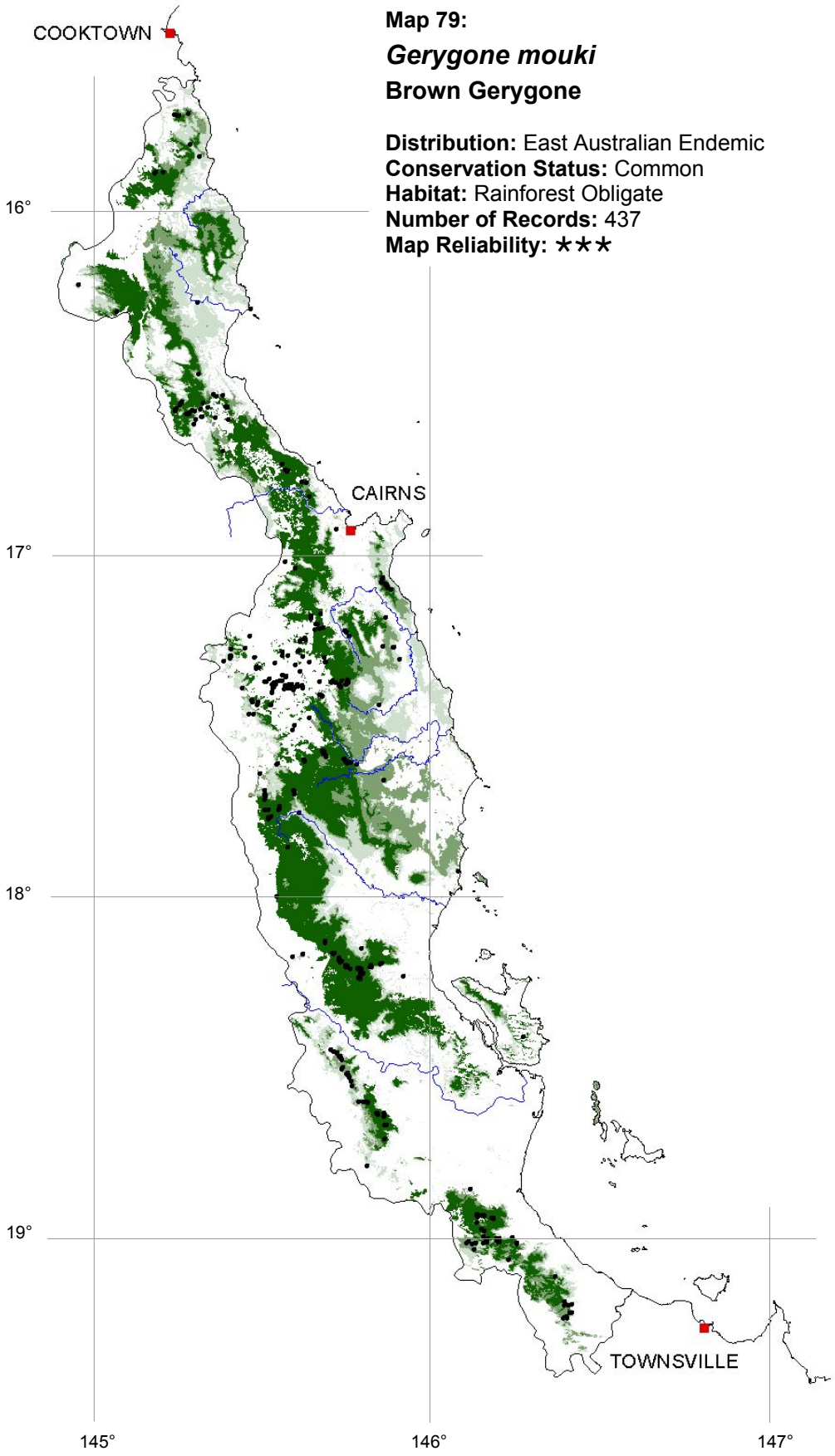


Map 78:

Gerygone magnirostris

Large-billed Gerygone

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 54
Map Reliability: ★★

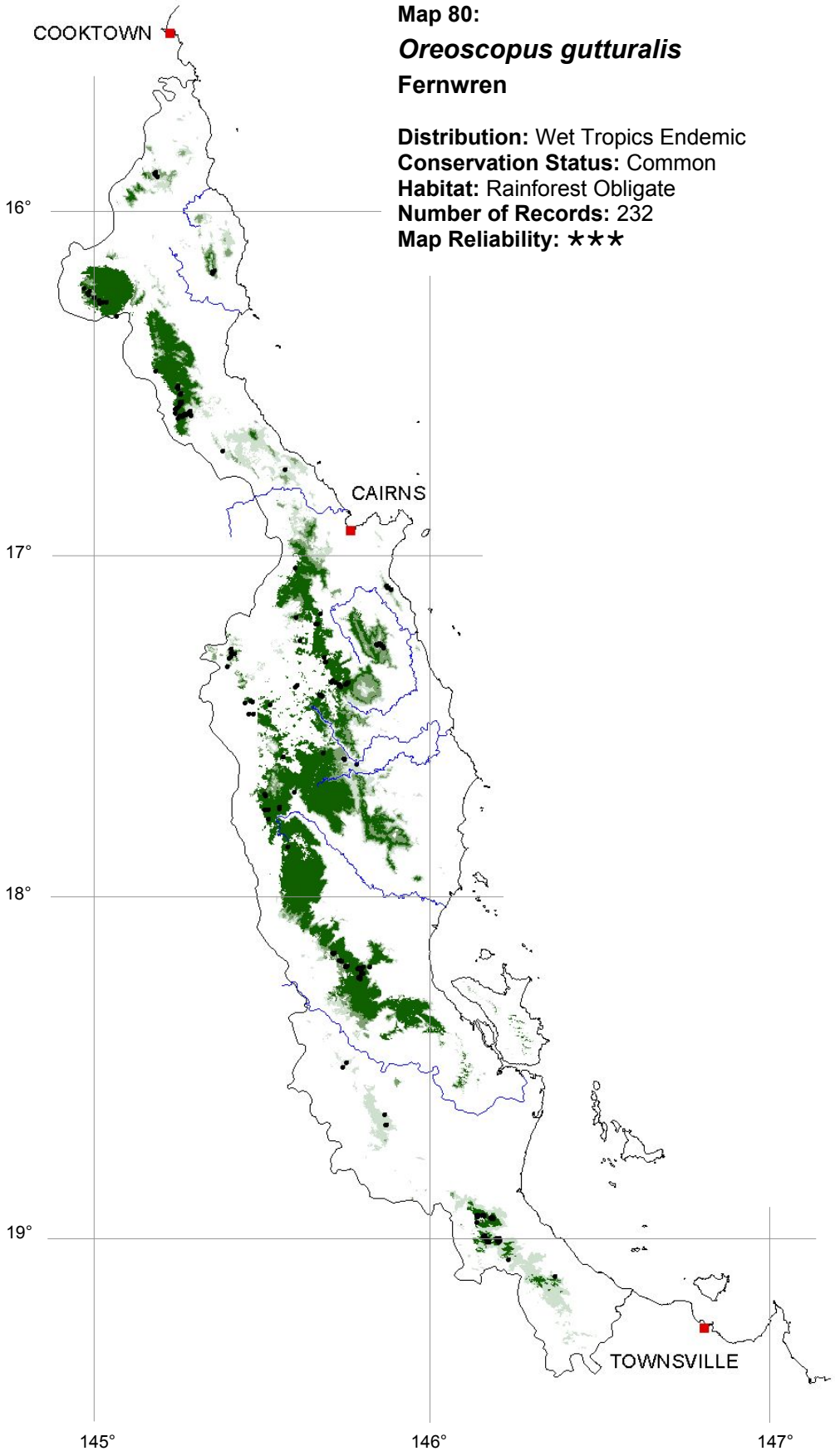


Map 79:

Gerygone mouki

Brown Gerygone

Distribution: East Australian Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 437
Map Reliability: ★★★

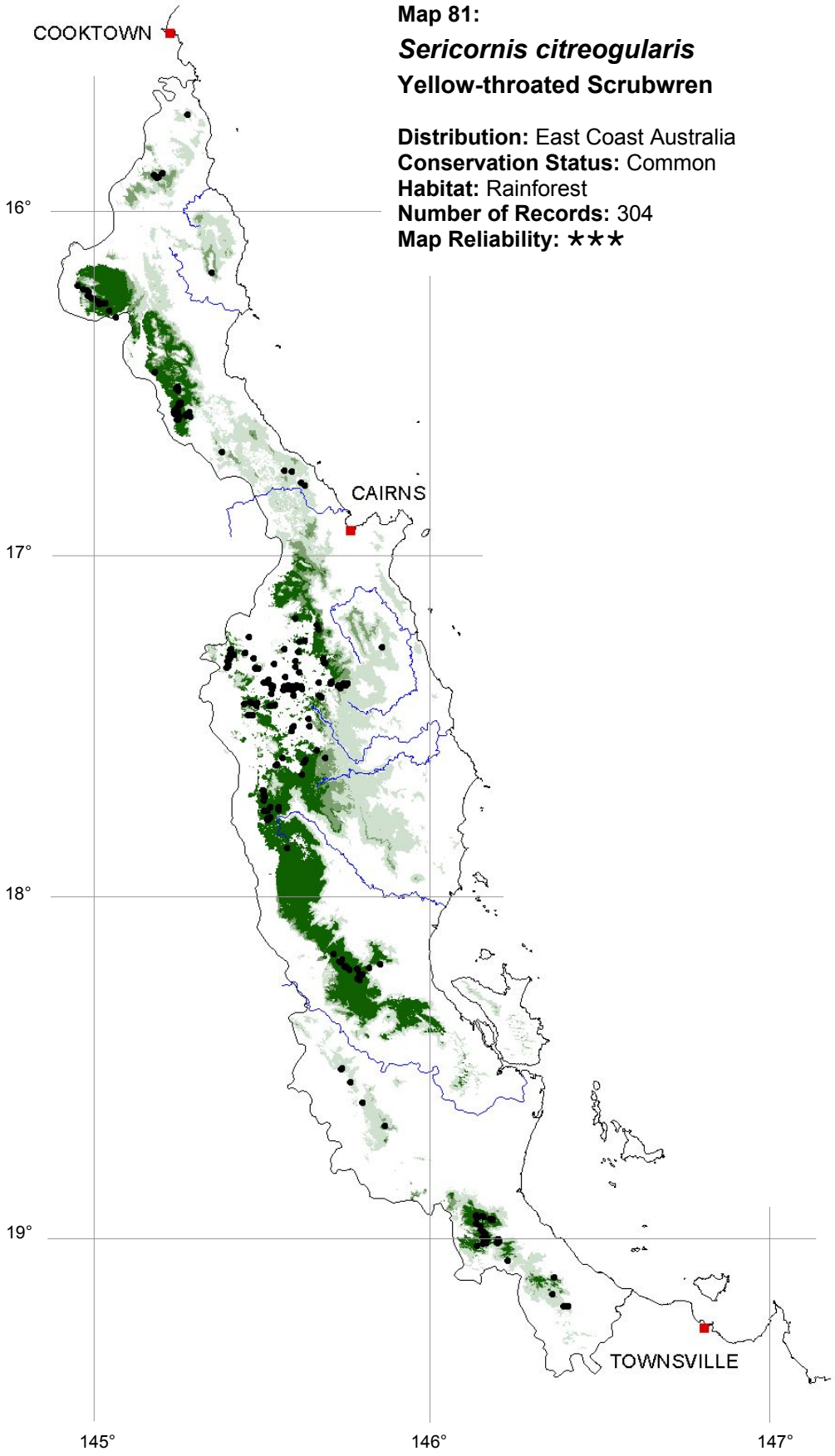


Map 80:

Oreoscopus gutturalis

Fernwren

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 232
Map Reliability: ★★★

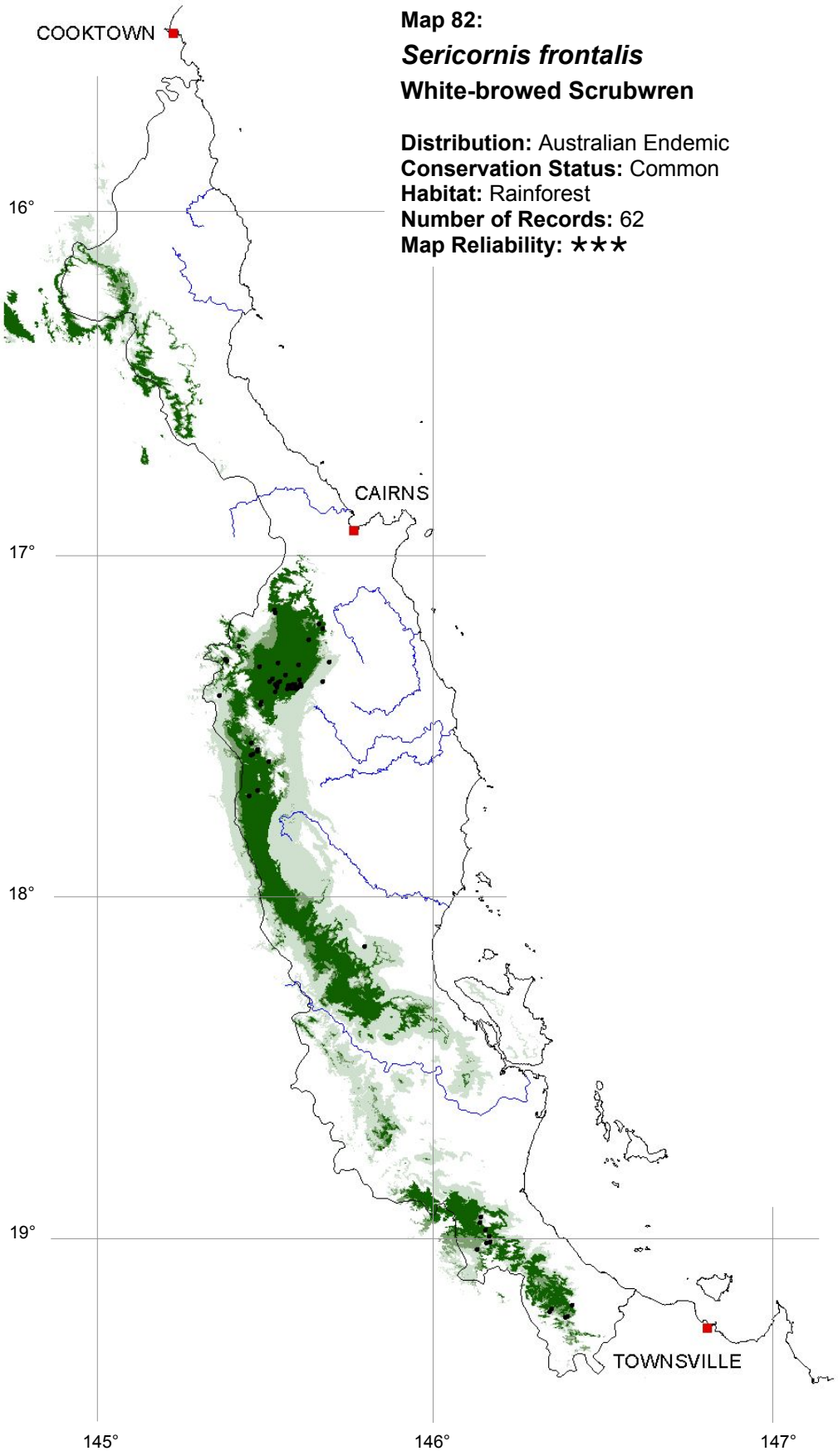


Map 81:

Sericornis citreogularis

Yellow-throated Scrubwren

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 304
Map Reliability: ★★★

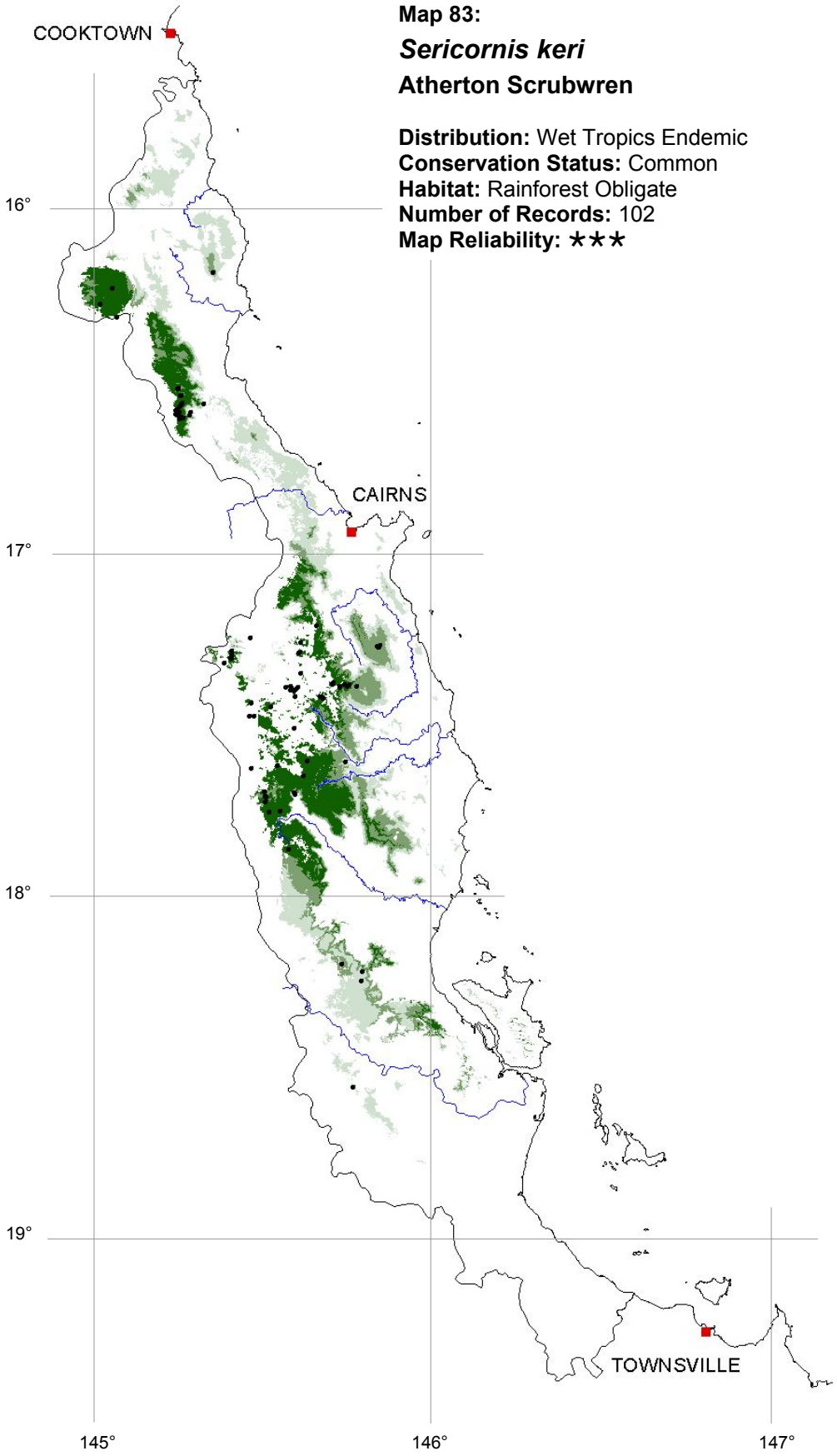


Map 82:

Sericornis frontalis

White-browed Scrubwren

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 62
Map Reliability: ★★★

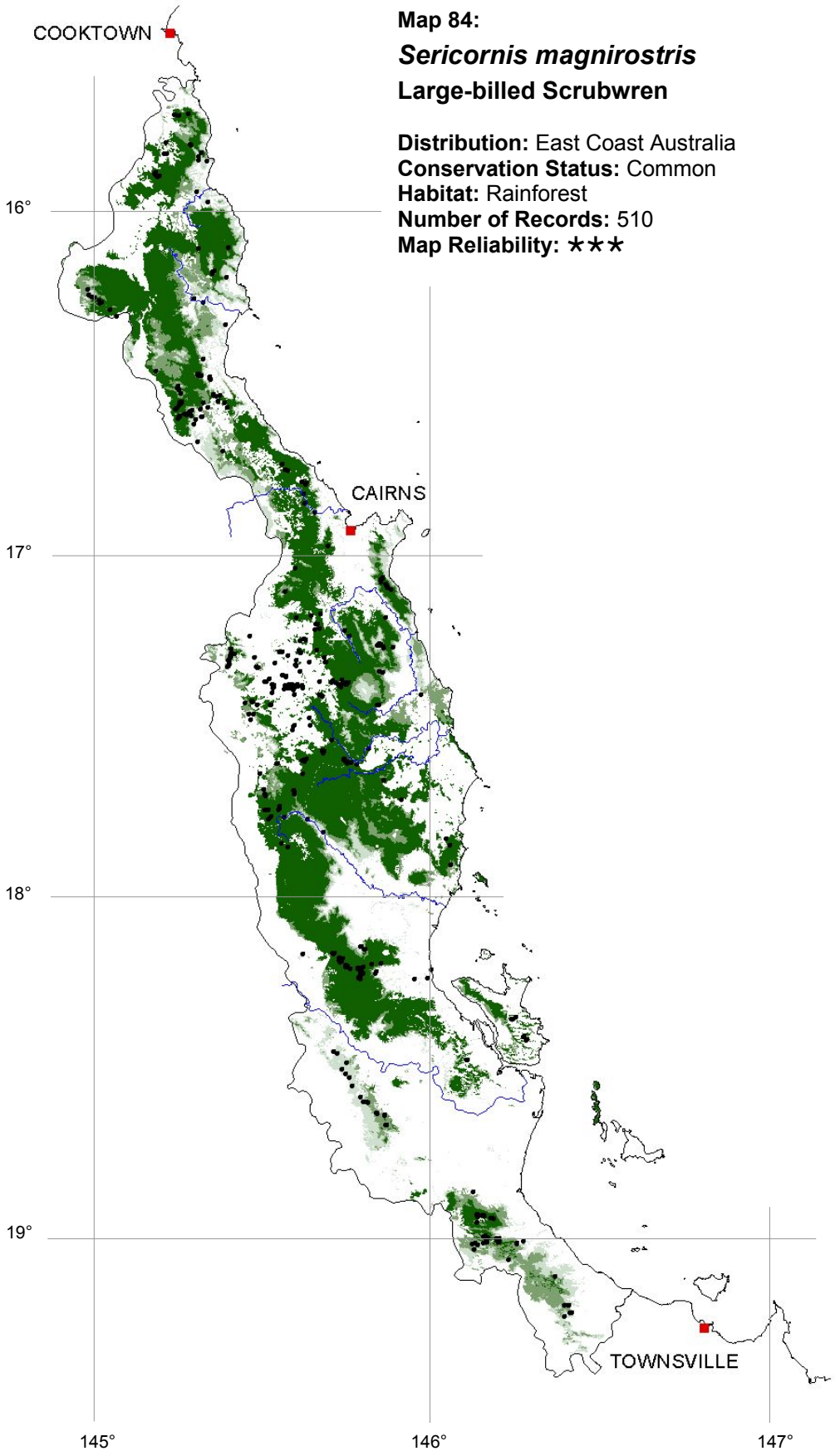


Map 83:

Sericornis keri

Atherton Scrubwren

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 102
Map Reliability: ★★★

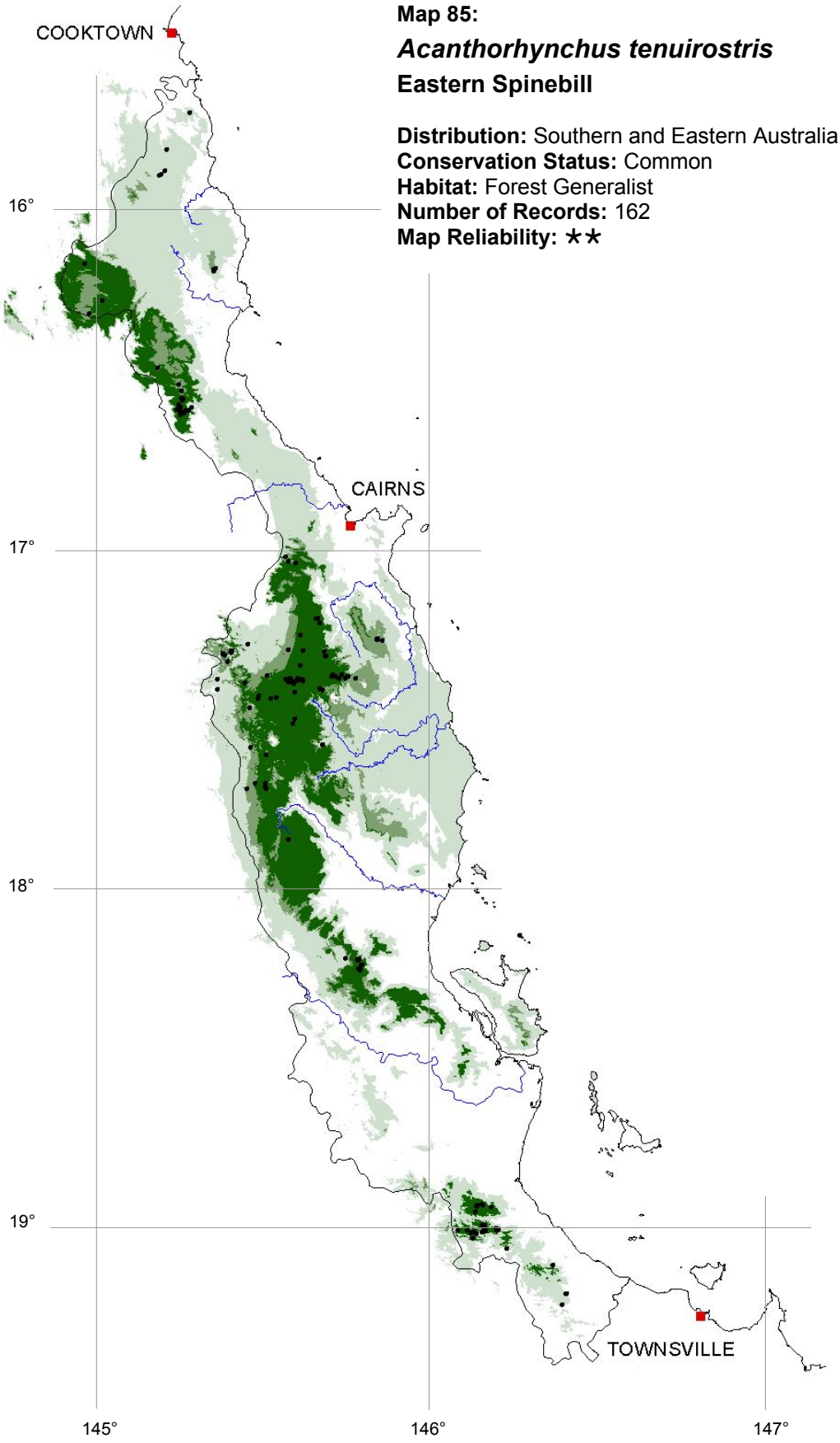


Map 84:

Sericornis magnirostris

Large-billed Scrubwren

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 510
Map Reliability: ★★★

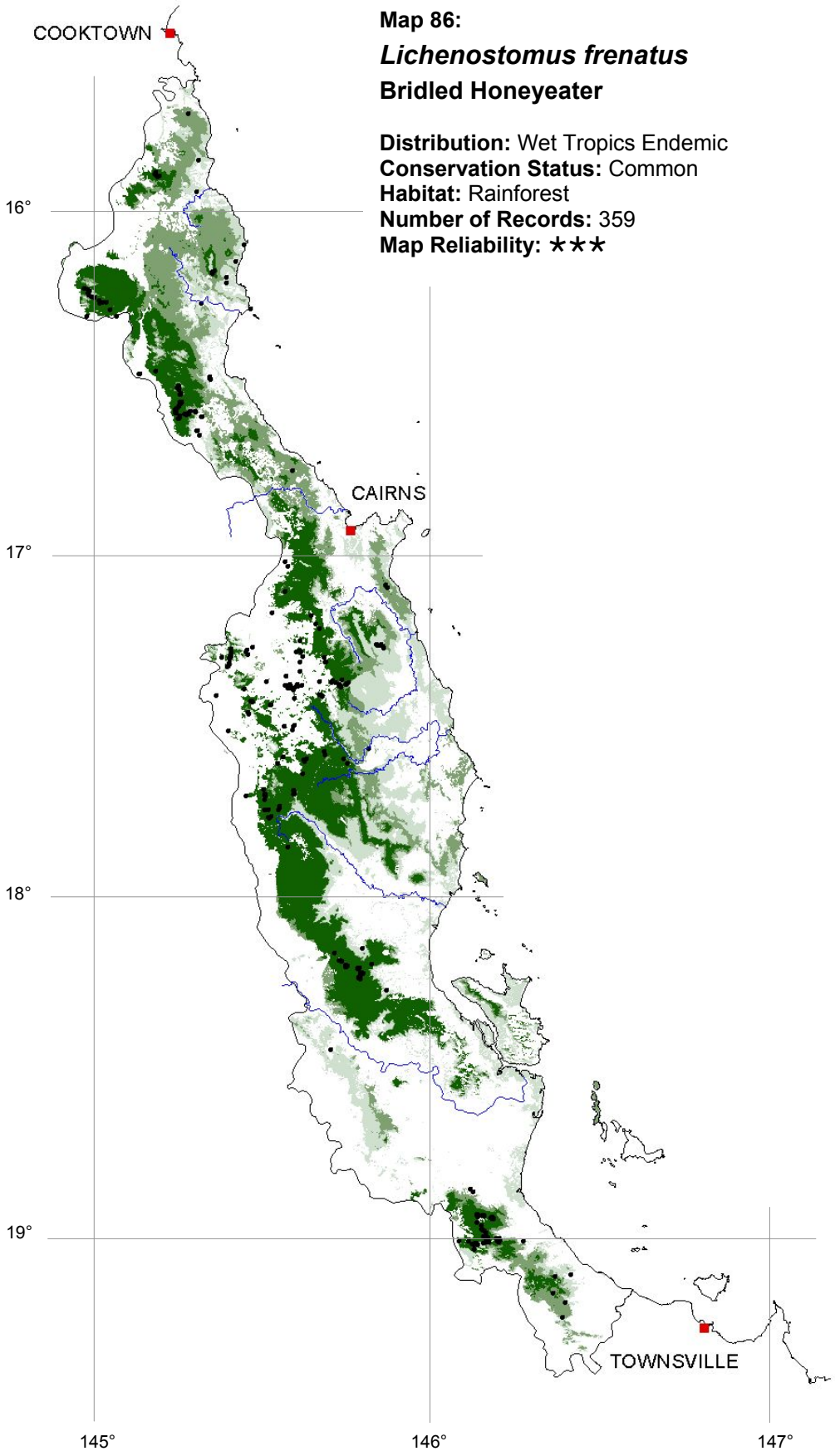


Map 85:

Acanthorhynchus tenuirostris

Eastern Spinebill

Distribution: Southern and Eastern Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 162
Map Reliability: ★★

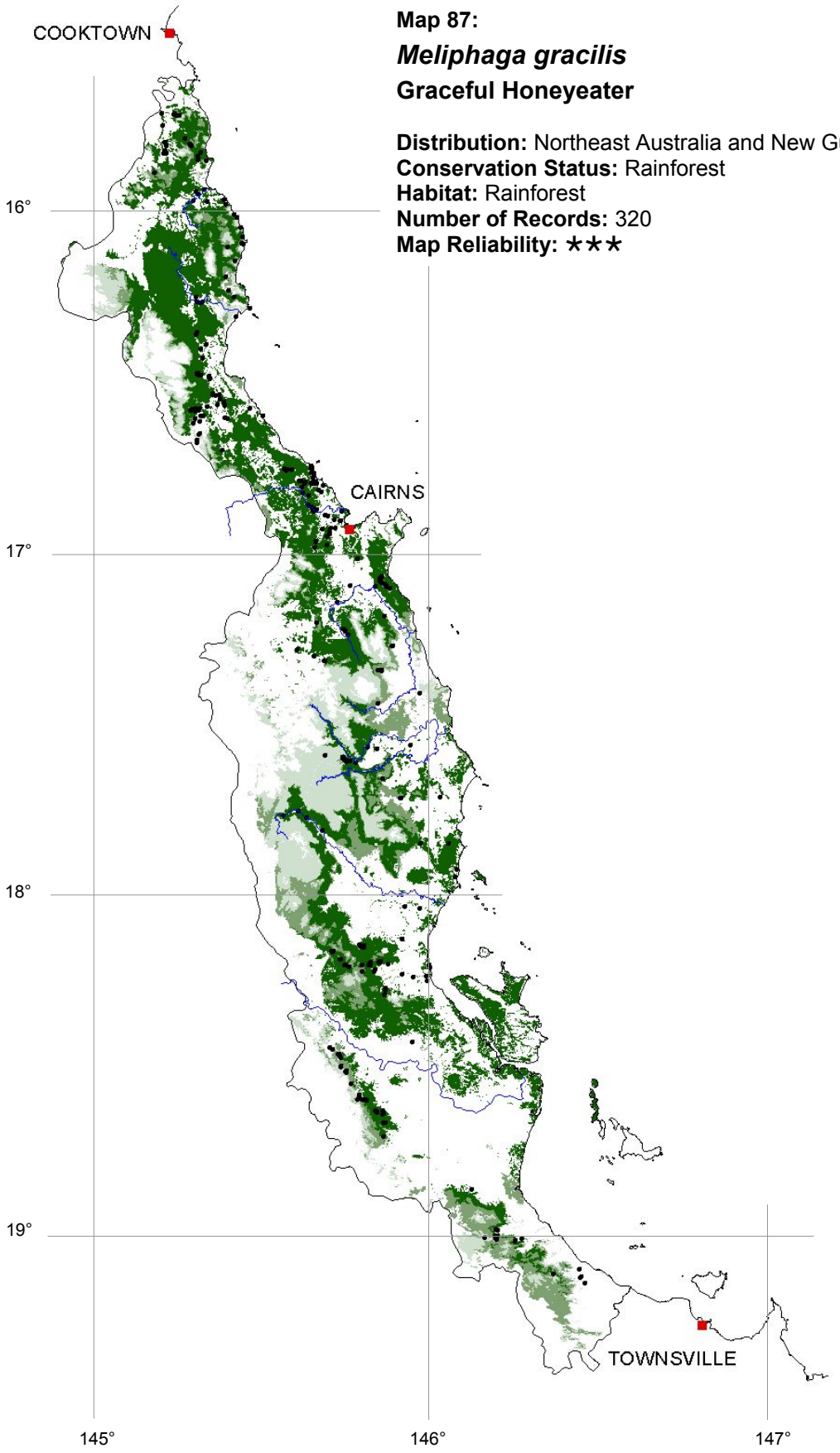


Map 86:

Lichenostomus frenatus

Bridled Honeyeater

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 359
Map Reliability: ★★★

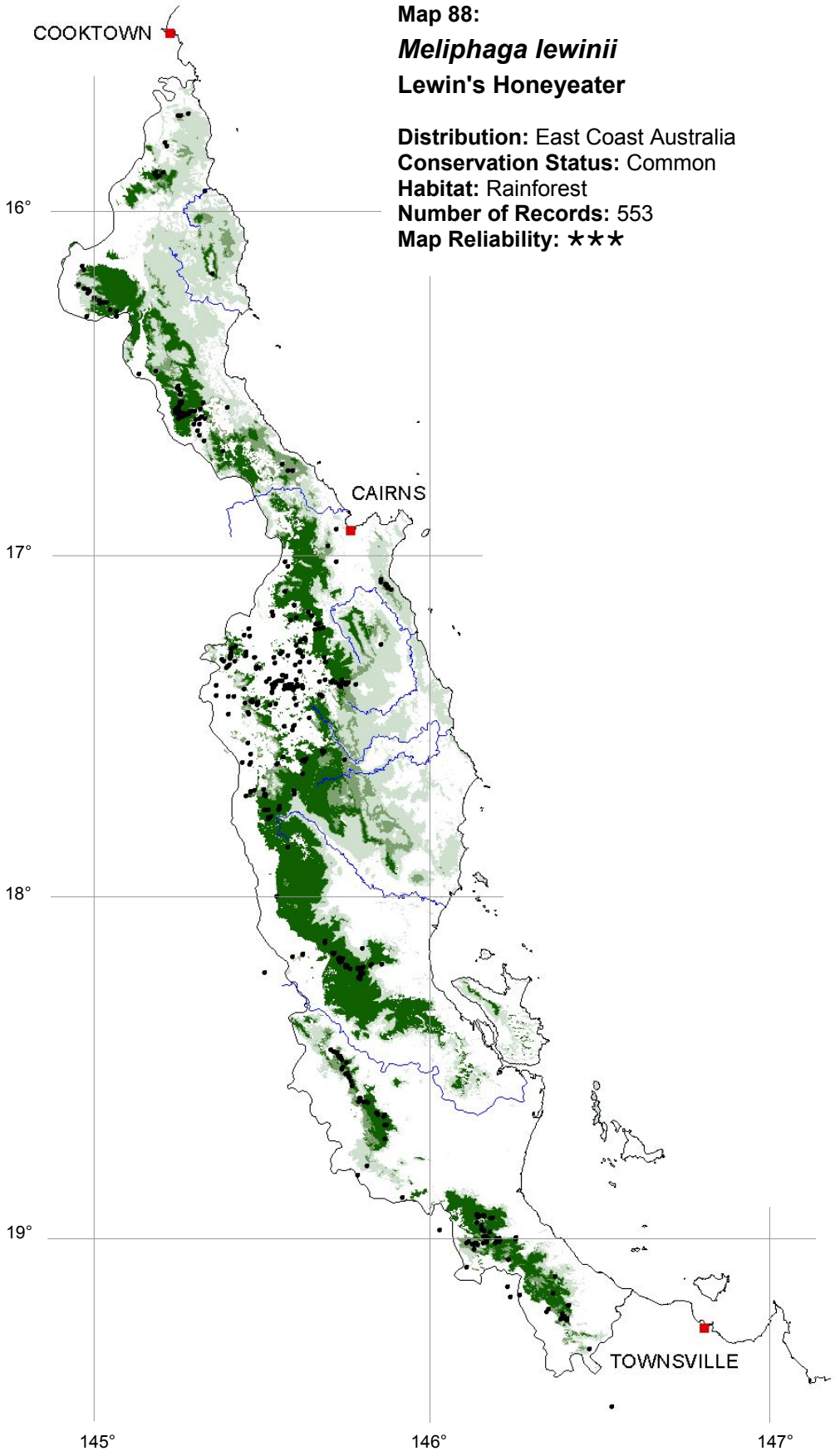


Map 87:

Meliphaga gracilis

Graceful Honeyeater

Distribution: Northeast Australia and New Guinea
Conservation Status: Rainforest
Habitat: Rainforest
Number of Records: 320
Map Reliability: ★★★

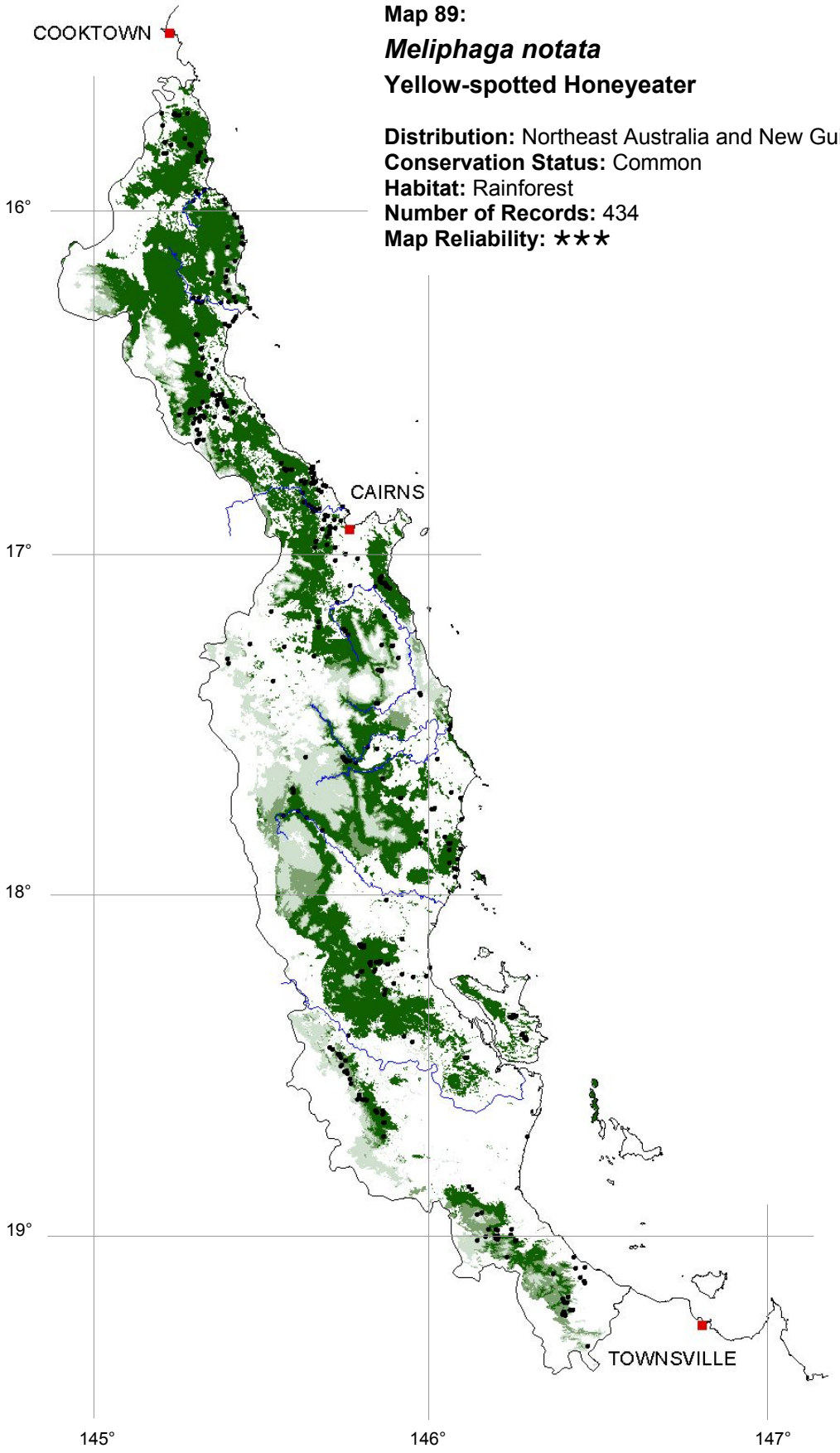


Map 88:

Meliphaga lewinii

Lewin's Honeyeater

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 553
Map Reliability: ★★★

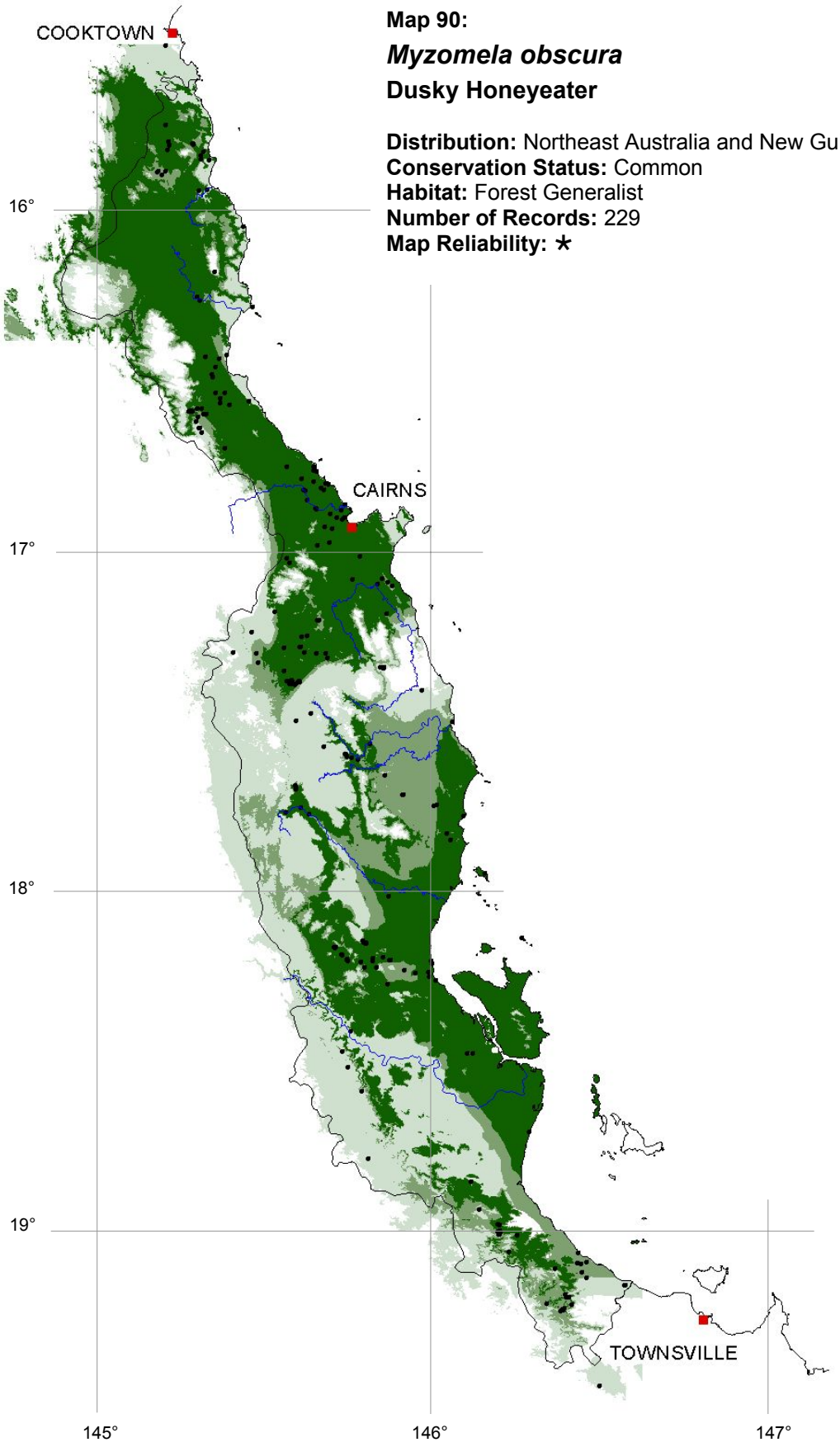


Map 89:

Meliphaga notata

Yellow-spotted Honeyeater

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 434
Map Reliability: ★★★

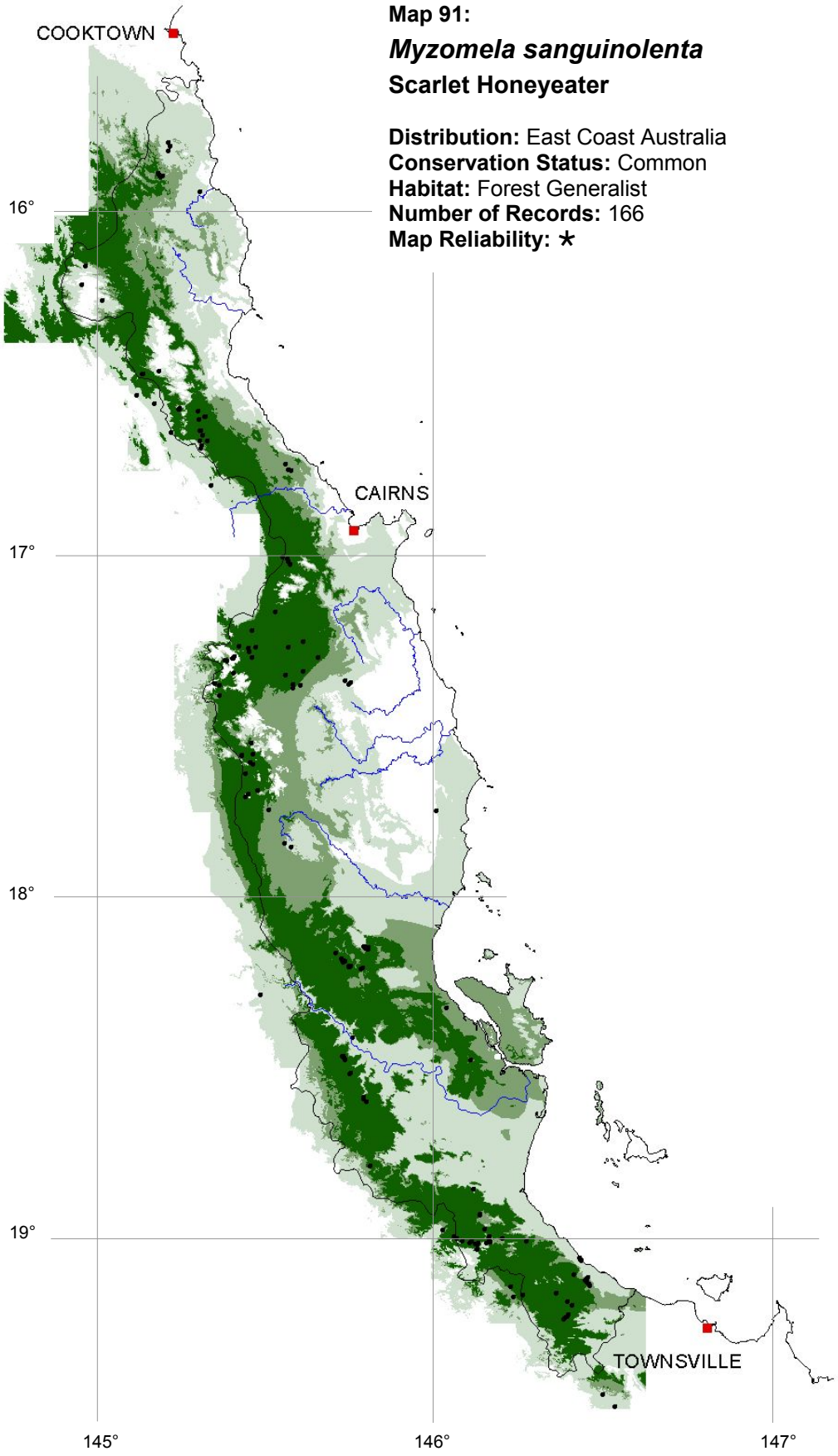


Map 90:

Myzomela obscura

Dusky Honeyeater

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 229
Map Reliability: ★

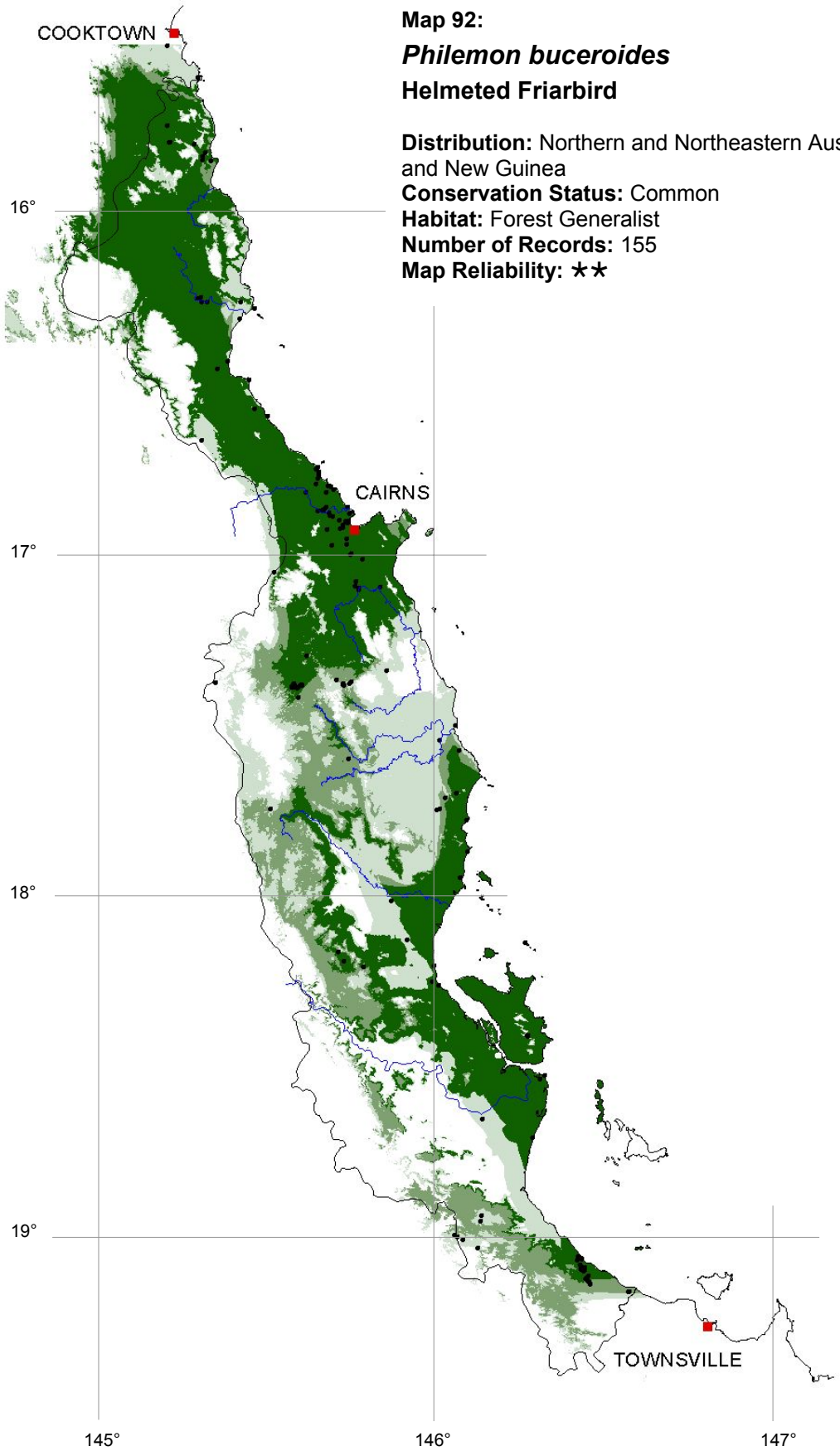


Map 91:

Myzomela sanguinolenta

Scarlet Honeyeater

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 166
Map Reliability: ★

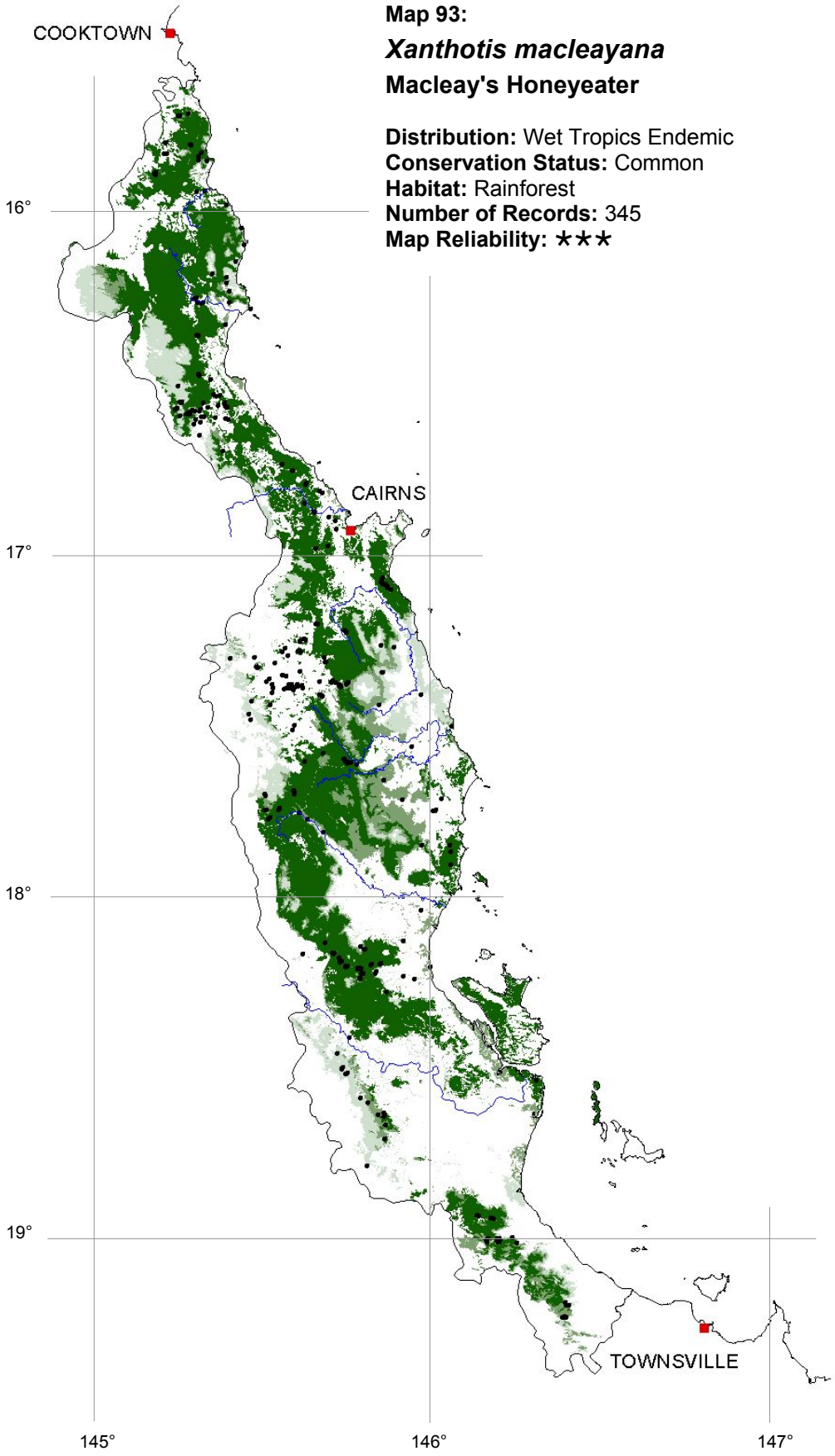


Map 92:

Philemon buceroides

Helmeted Friarbird

Distribution: Northern and Northeastern Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 155
Map Reliability: ★★

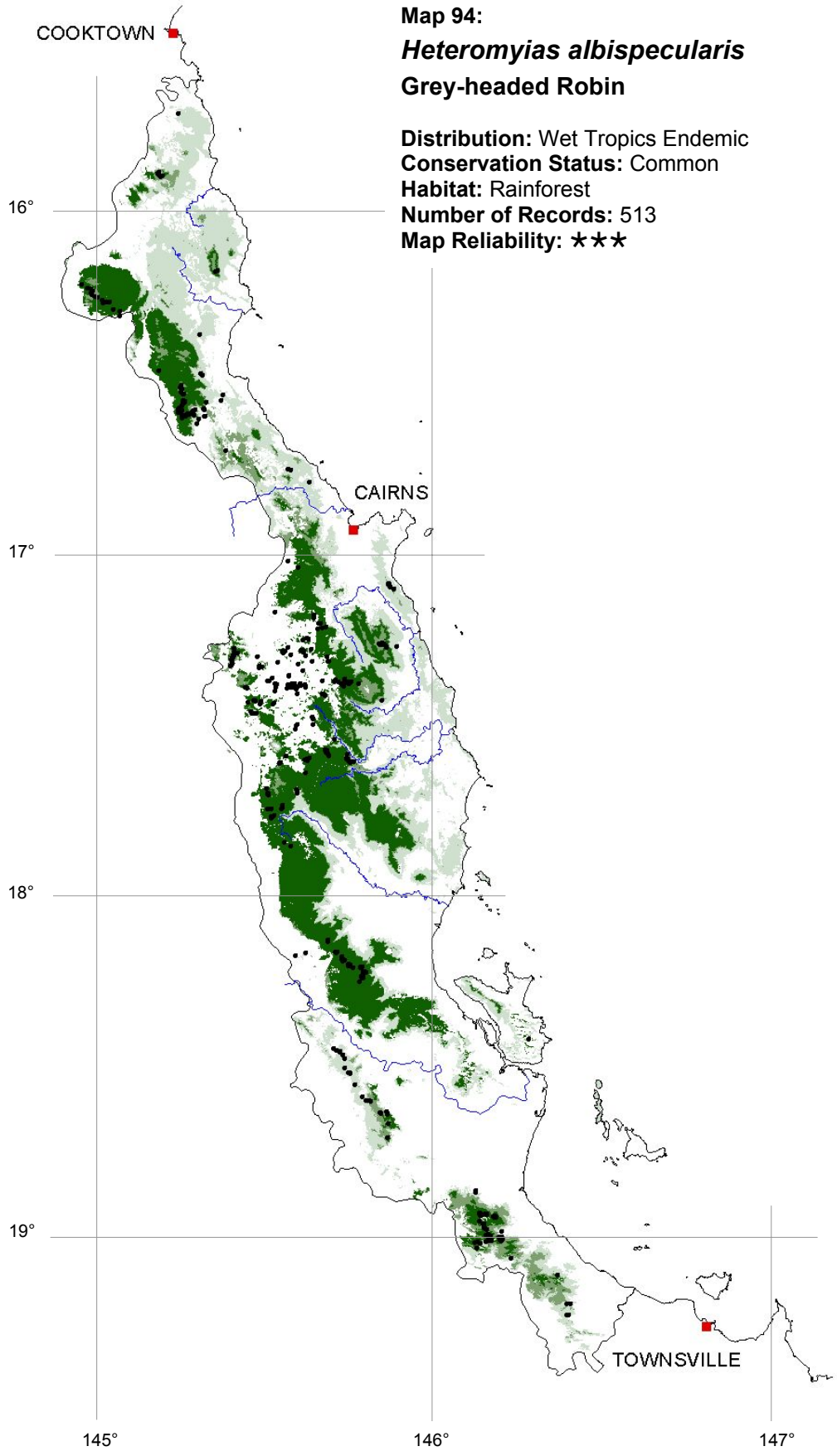


Map 93:

Xanthotis macleayana

Macleay's Honeyeater

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 345
Map Reliability: ★★★

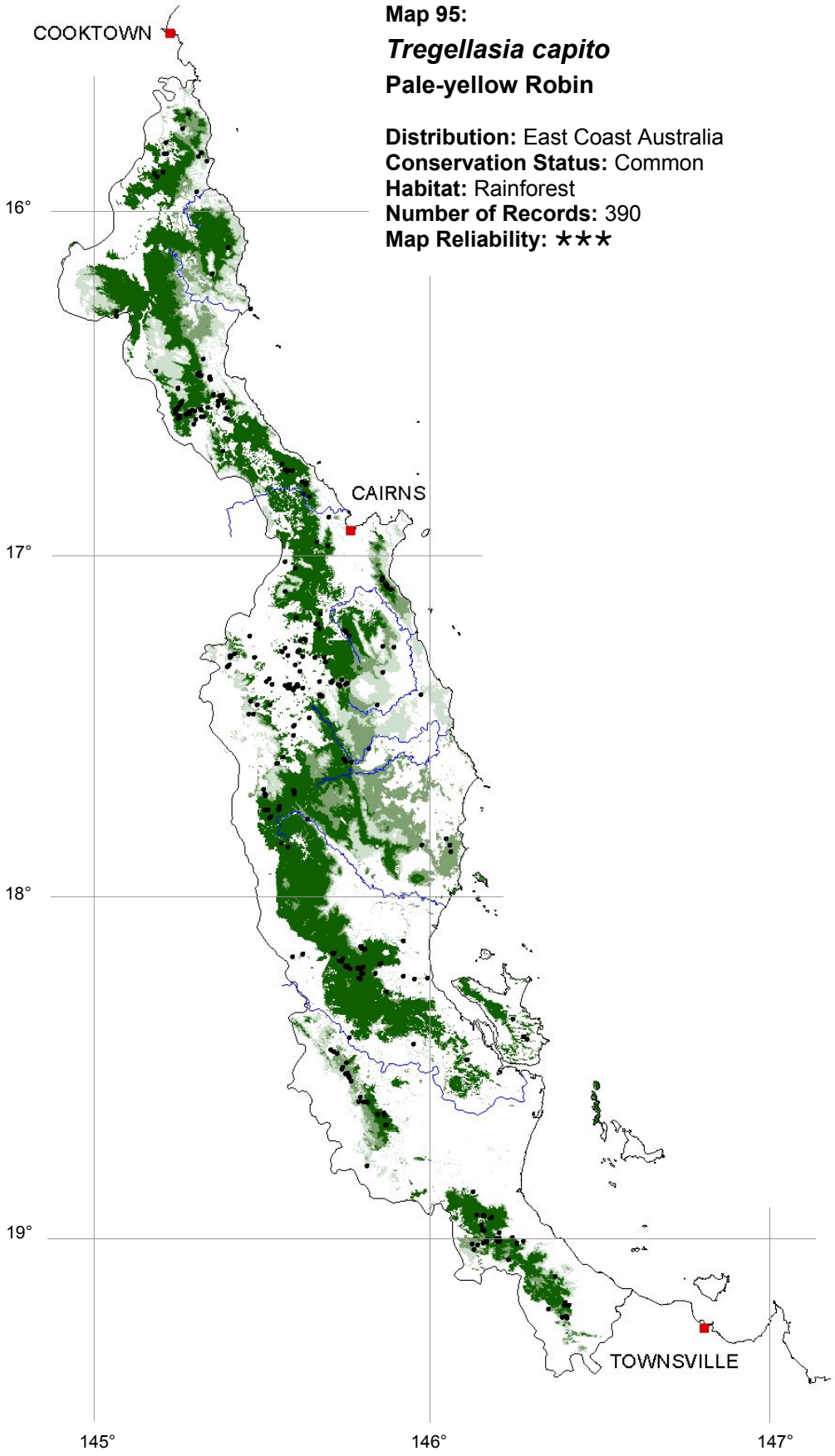


Map 94:

Heteromyias albispecularis

Grey-headed Robin

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 513
Map Reliability: ★★★

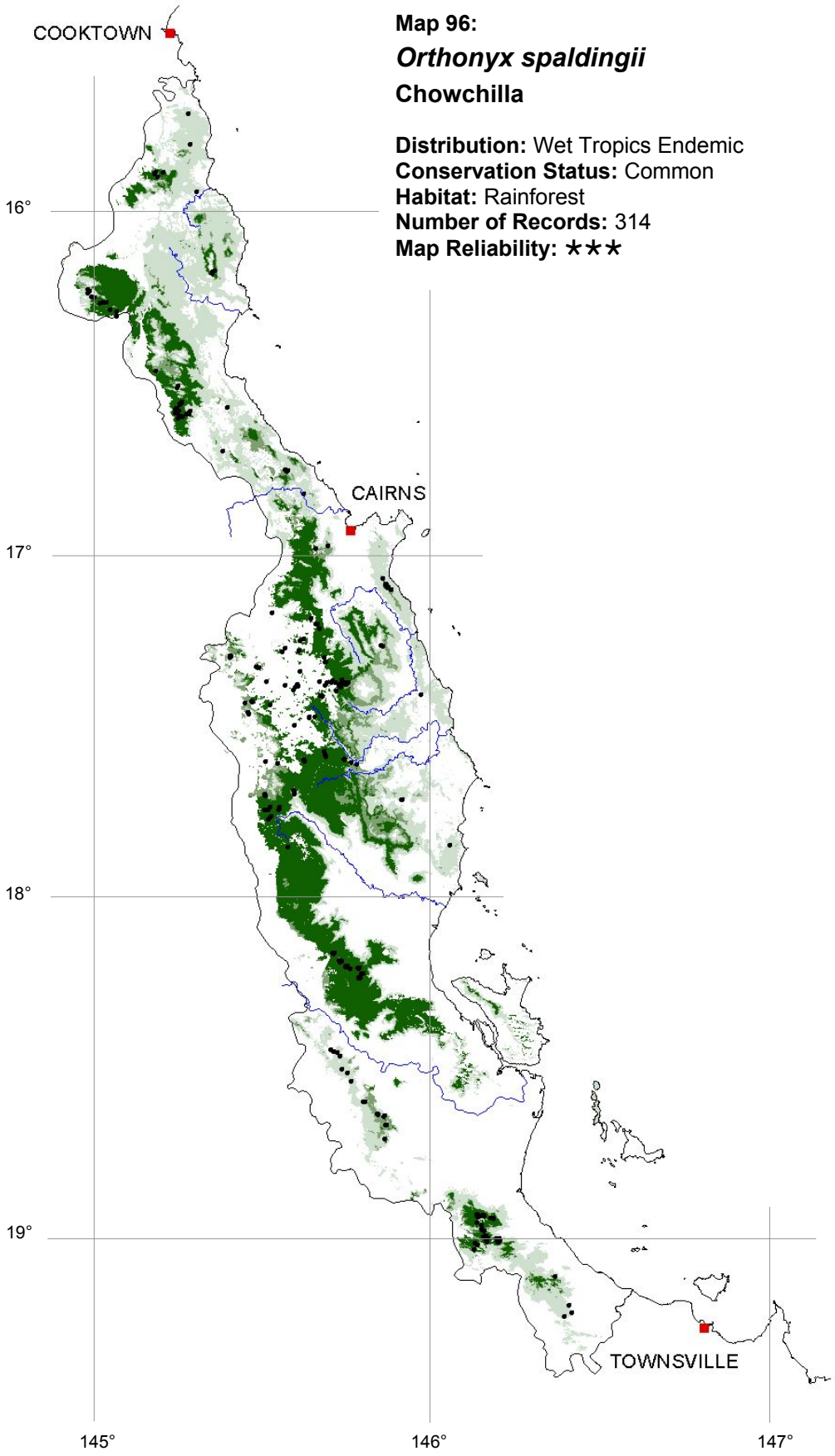


Map 95:

Tregellasia capito

Pale-yellow Robin

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 390
Map Reliability: ★★★

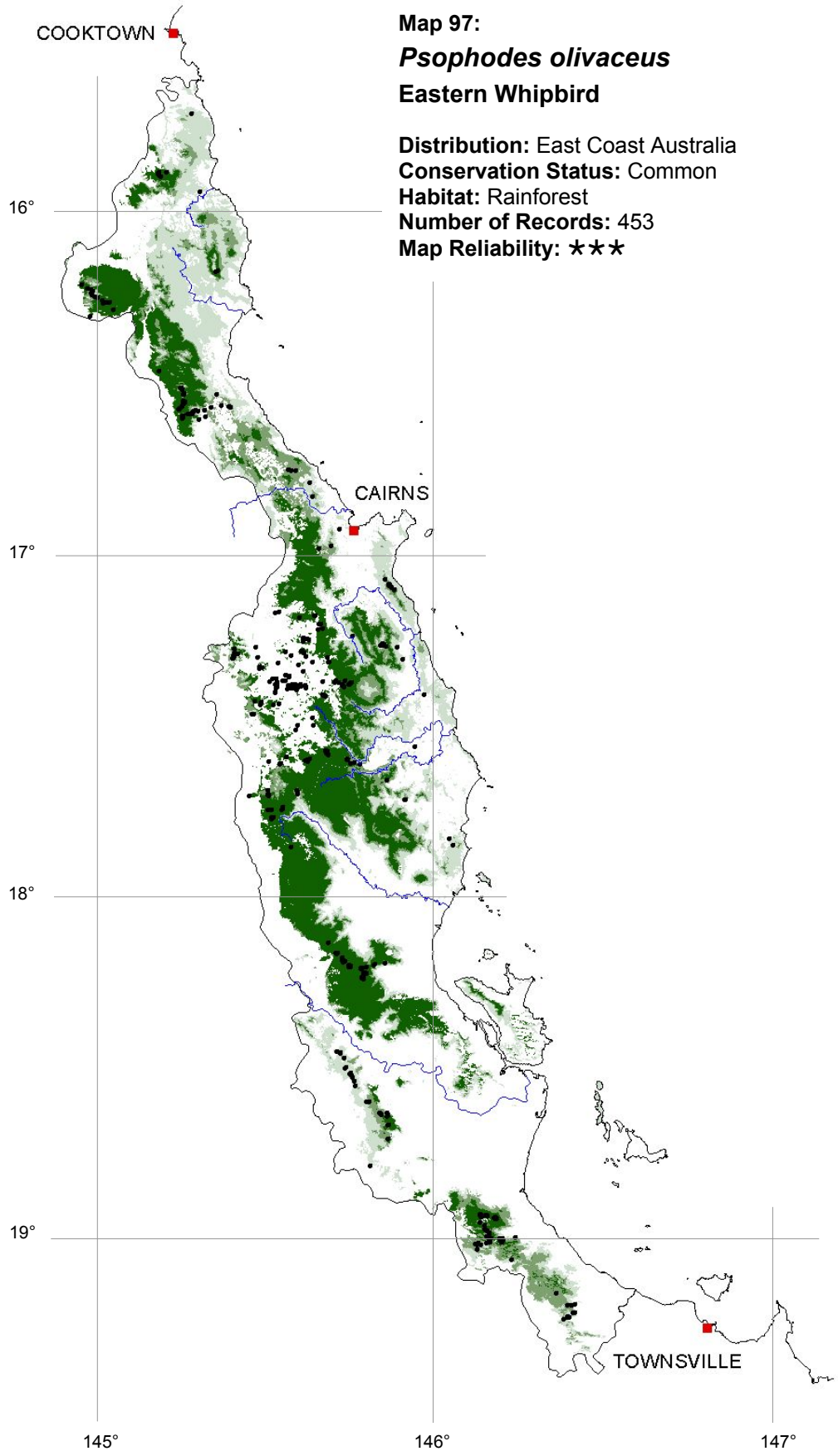


Map 96:

Orthonyx spaldingii

Chowchilla

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 314
Map Reliability: ★★★

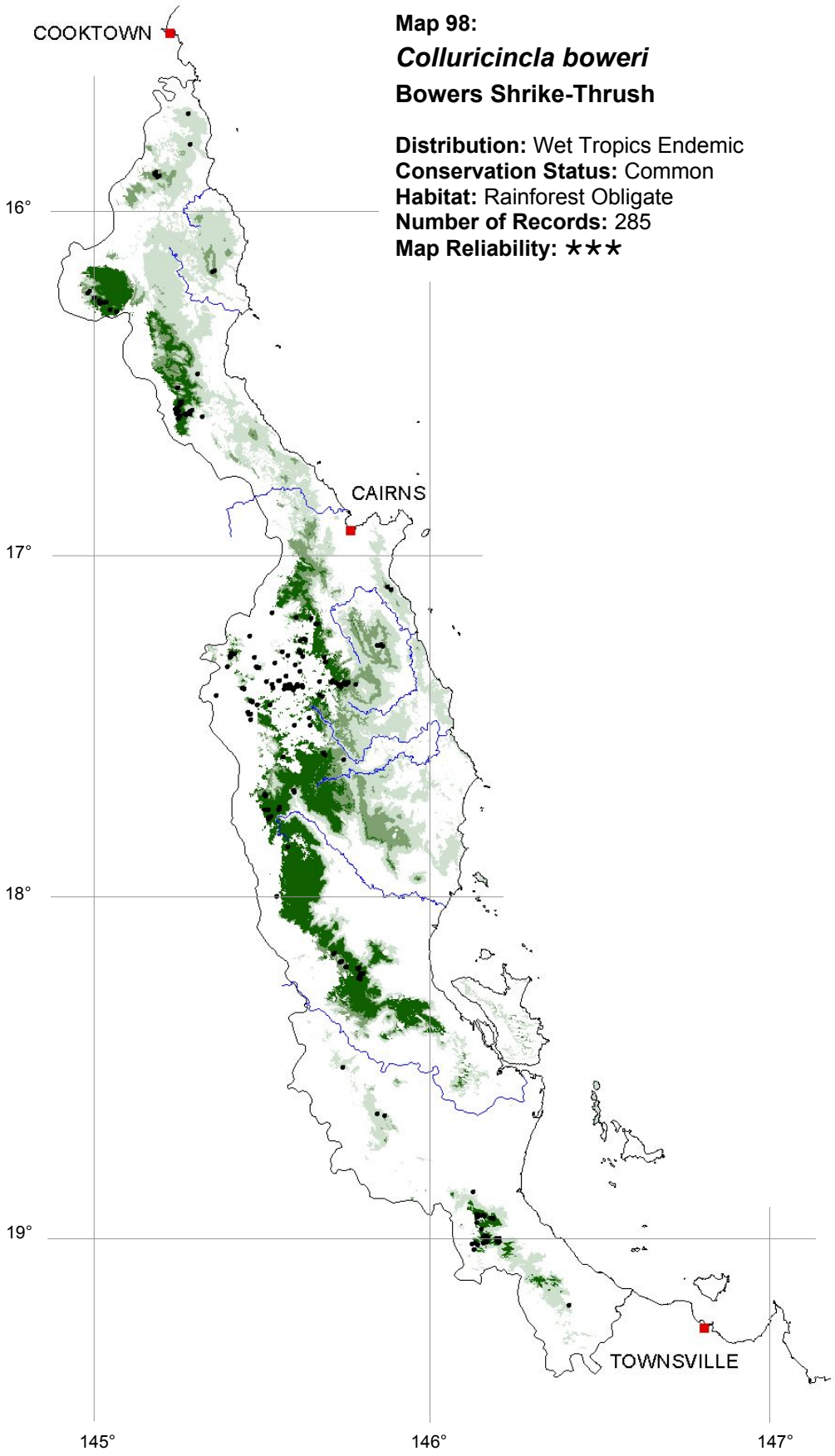


Map 97:

Psophodes olivaceus

Eastern Whipbird

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 453
Map Reliability: ★★★

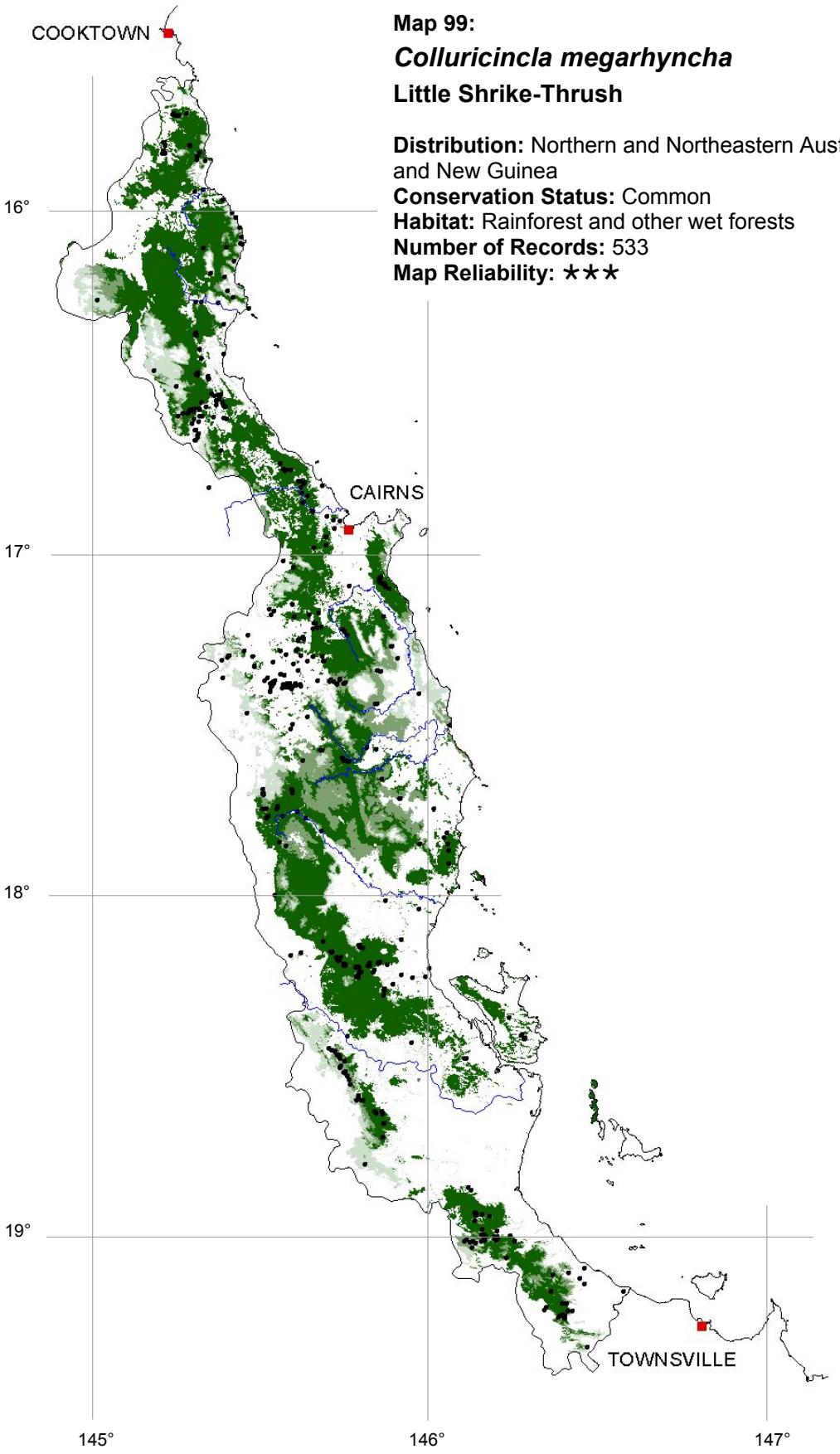


Map 98:

Colluricincla boweri

Bowers Shrike-Thrush

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 285
Map Reliability: ★★★

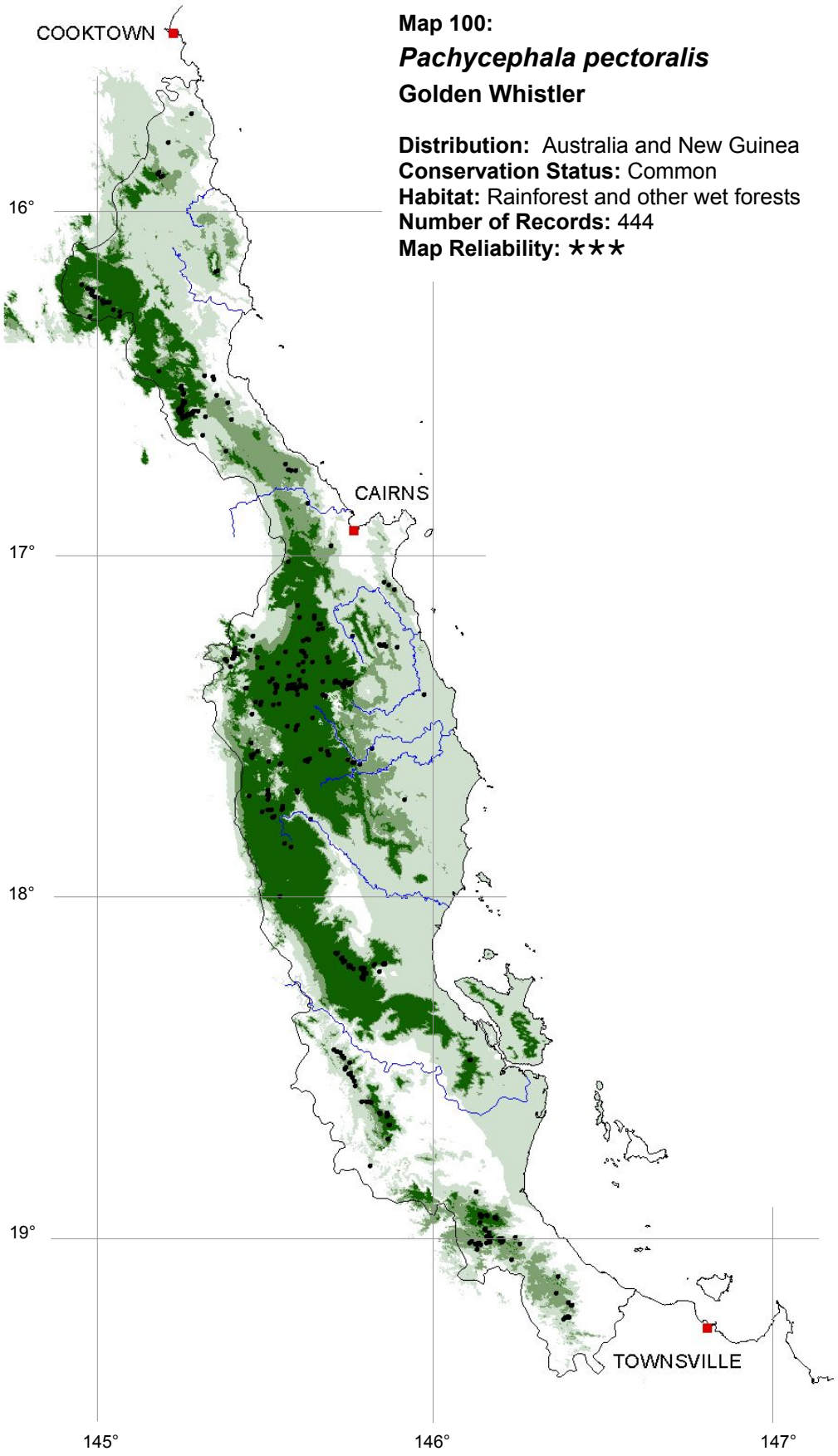


Map 99:

Colluricincla megarhyncha

Little Shrike-Thrush

Distribution: Northern and Northeastern Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 533
Map Reliability: ★★★

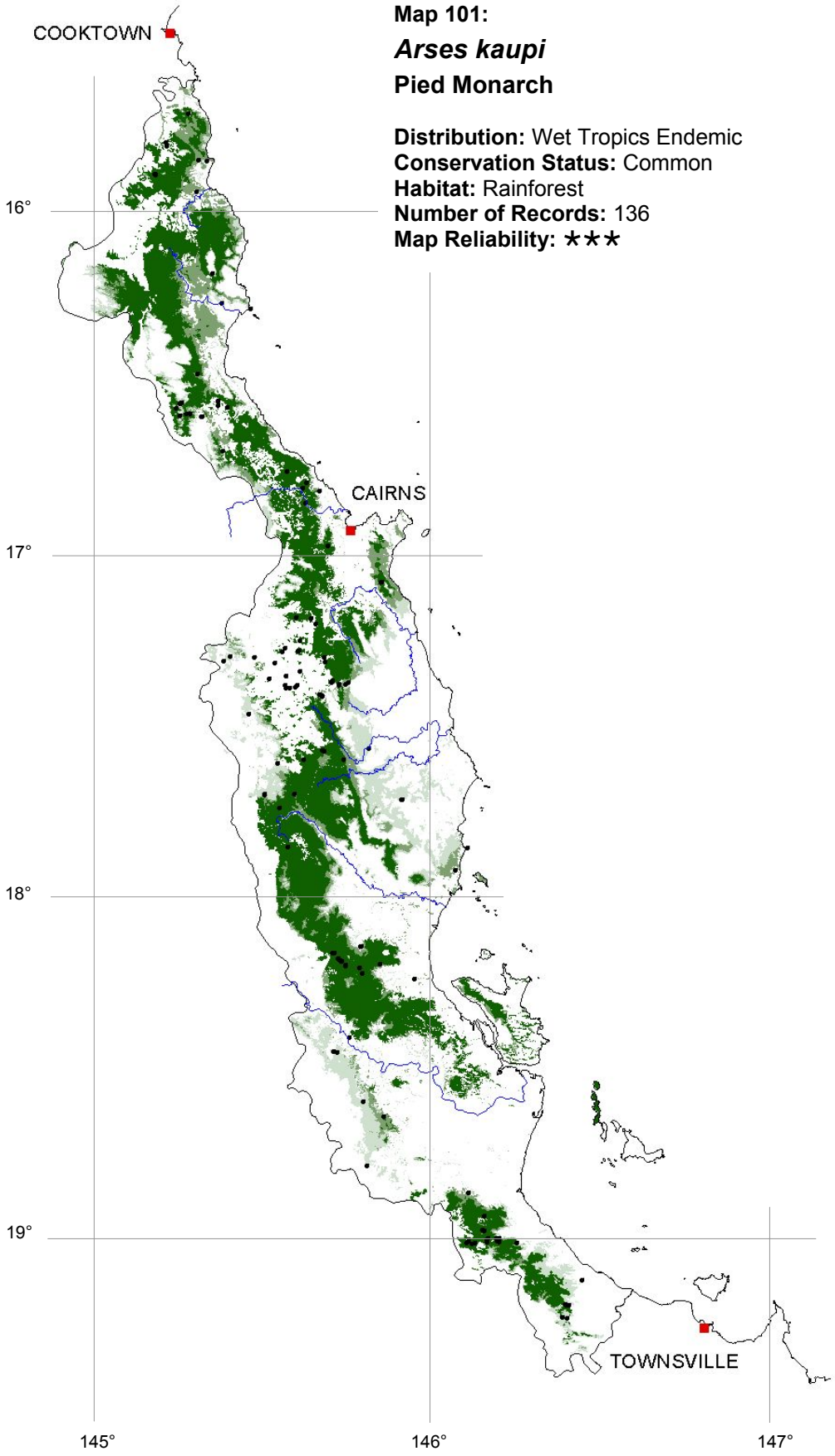


Map 100:

Pachycephala pectoralis

Golden Whistler

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 444
Map Reliability: ★★★

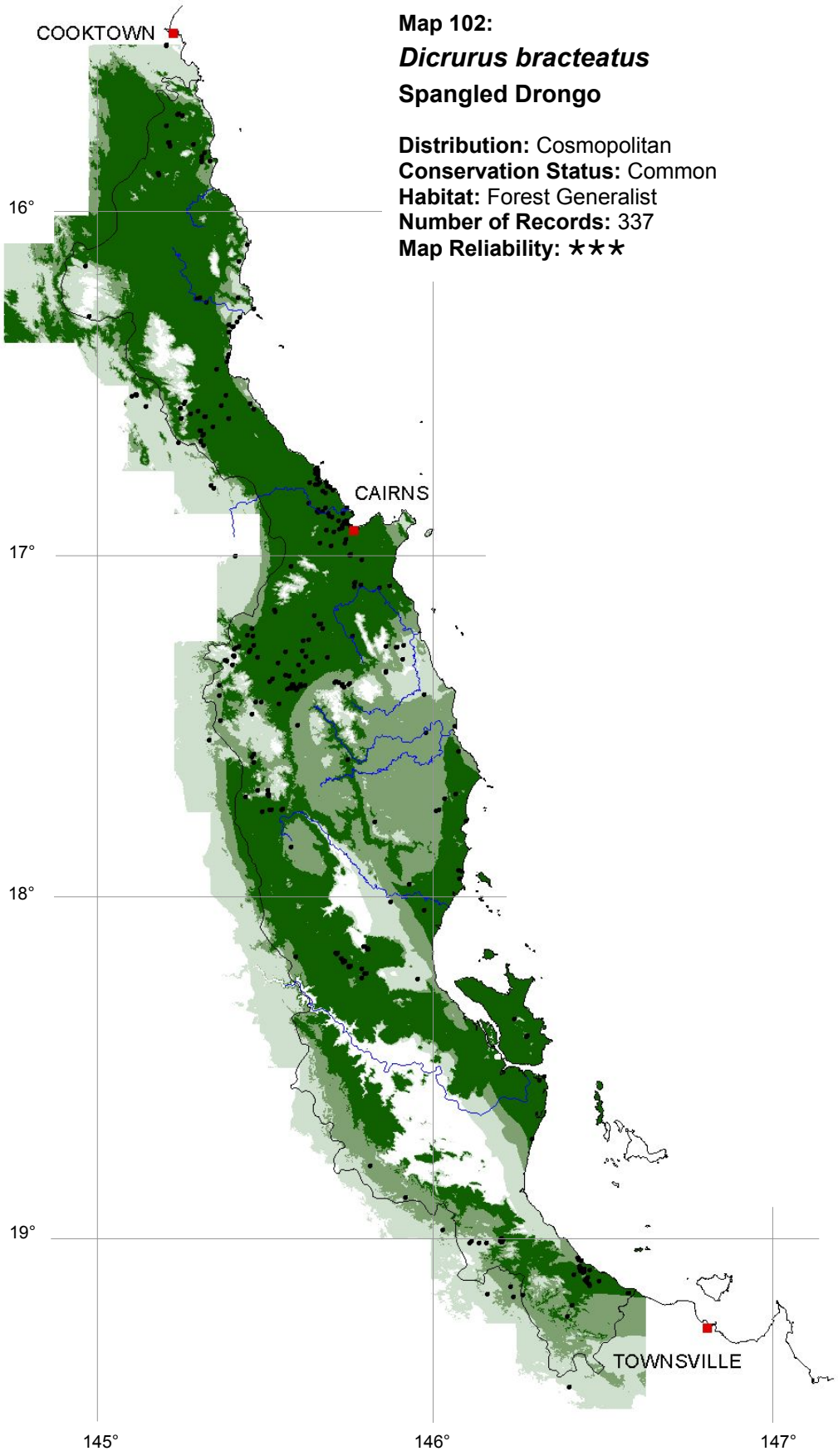


Map 101:

Arses kaupi

Pied Monarch

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 136
Map Reliability: ★★★

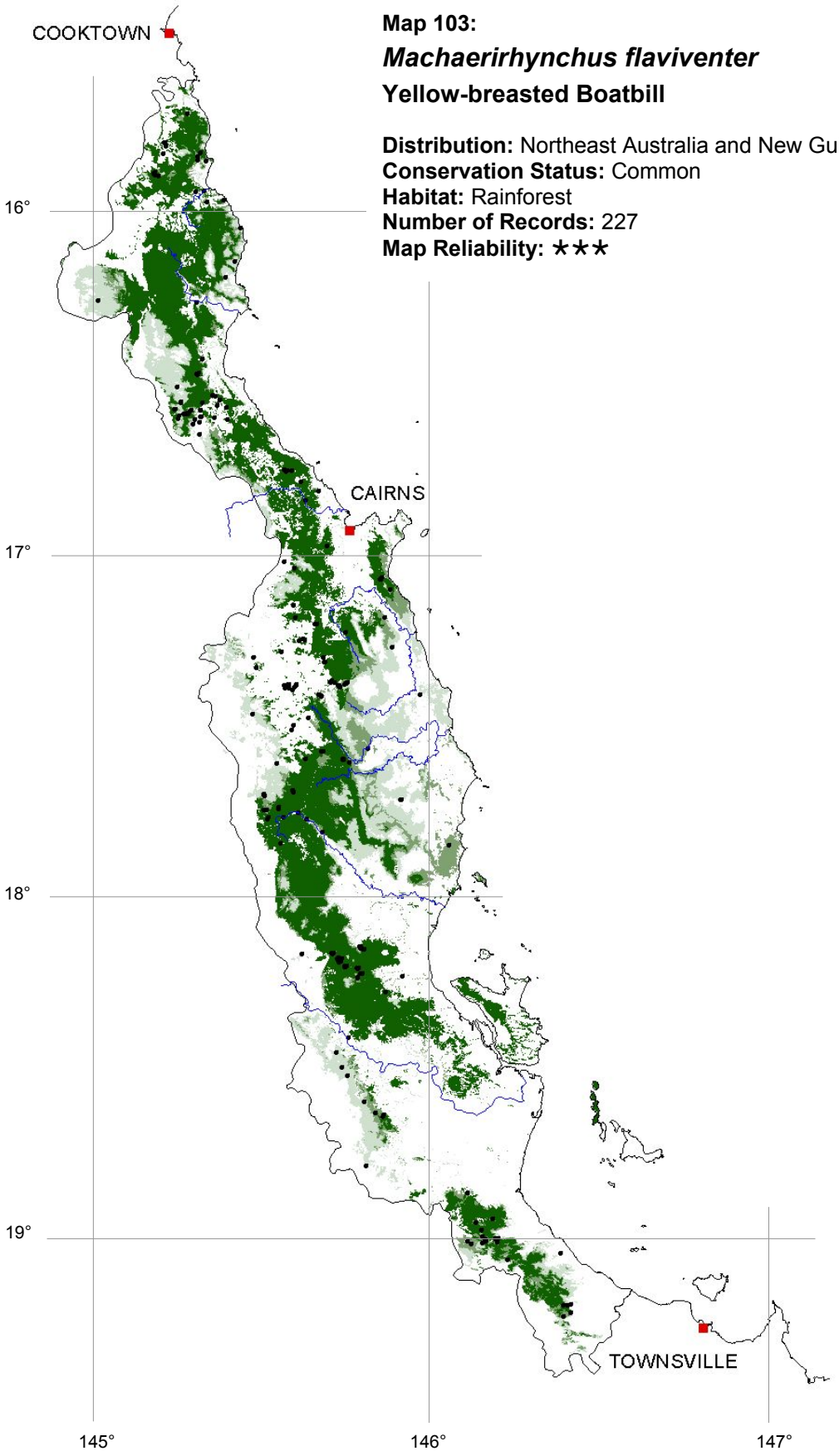


Map 102:

Dicrurus bracteatus

Spangled Drongo

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 337
Map Reliability: ★★★

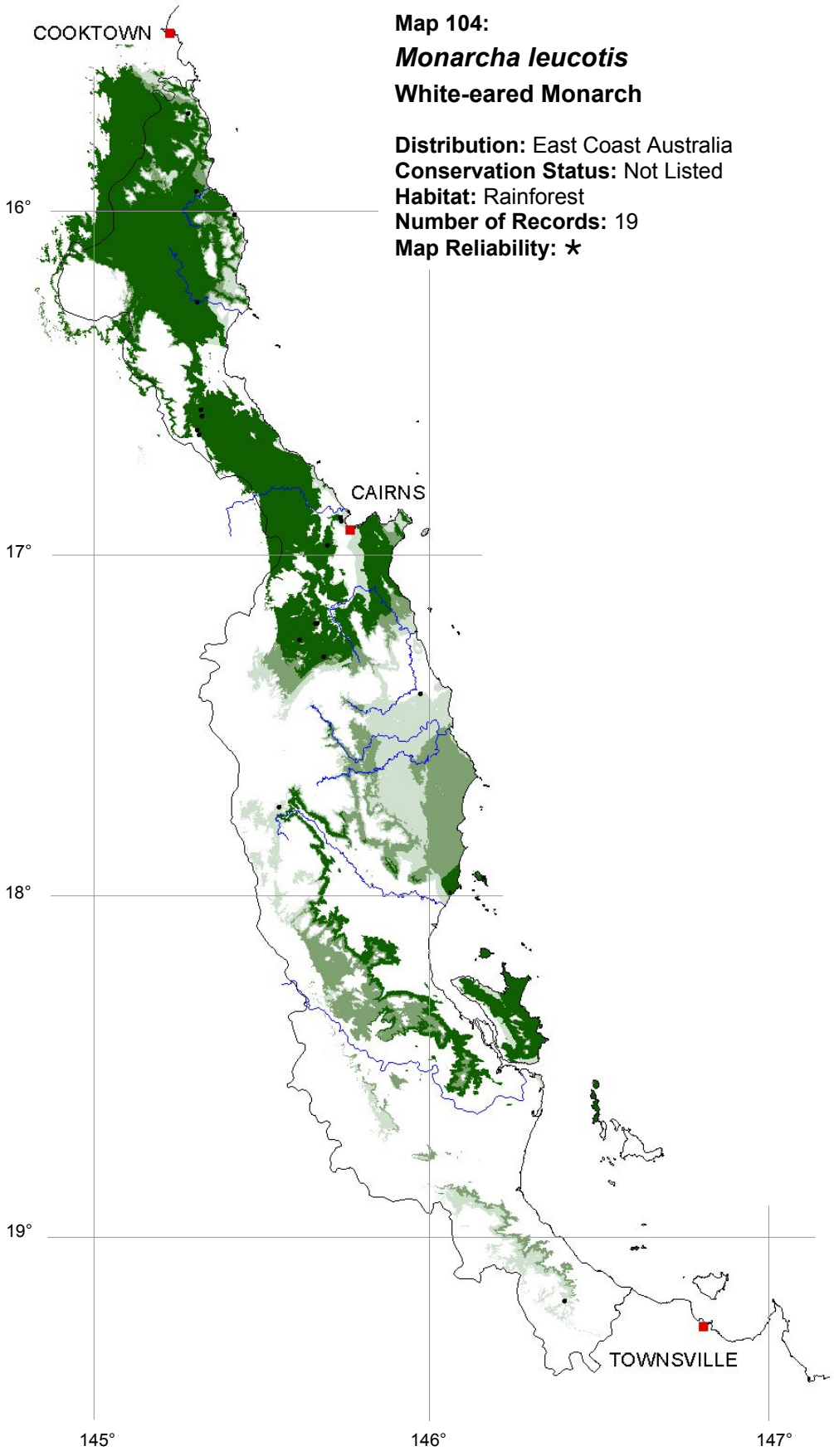


Map 103:

Machaerirhynchus flaviventer

Yellow-breasted Boatbill

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 227
Map Reliability: ★★★

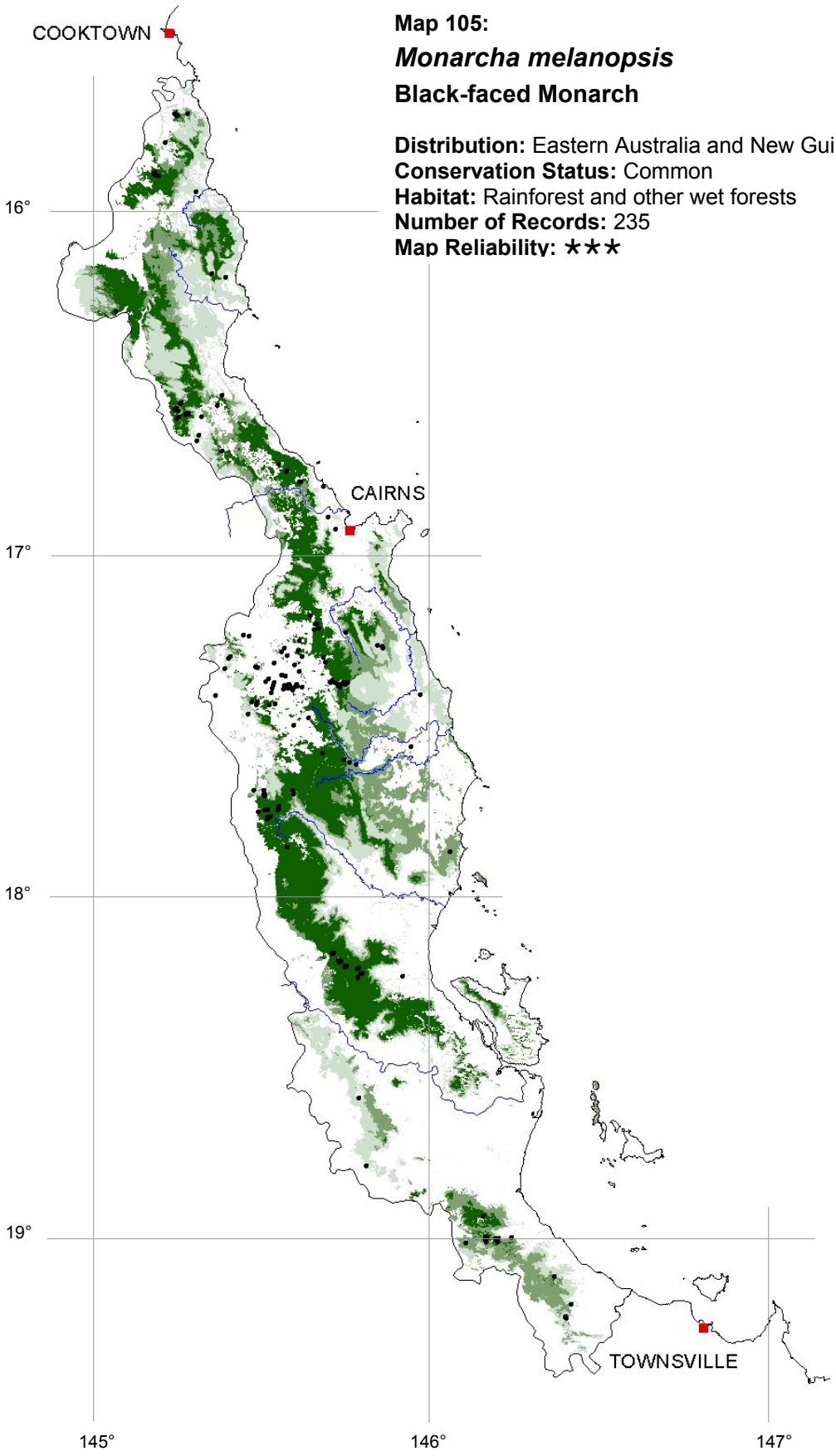


Map 104:

Monarcha leucotis

White-eared Monarch

Distribution: East Coast Australia
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 19
Map Reliability: ★

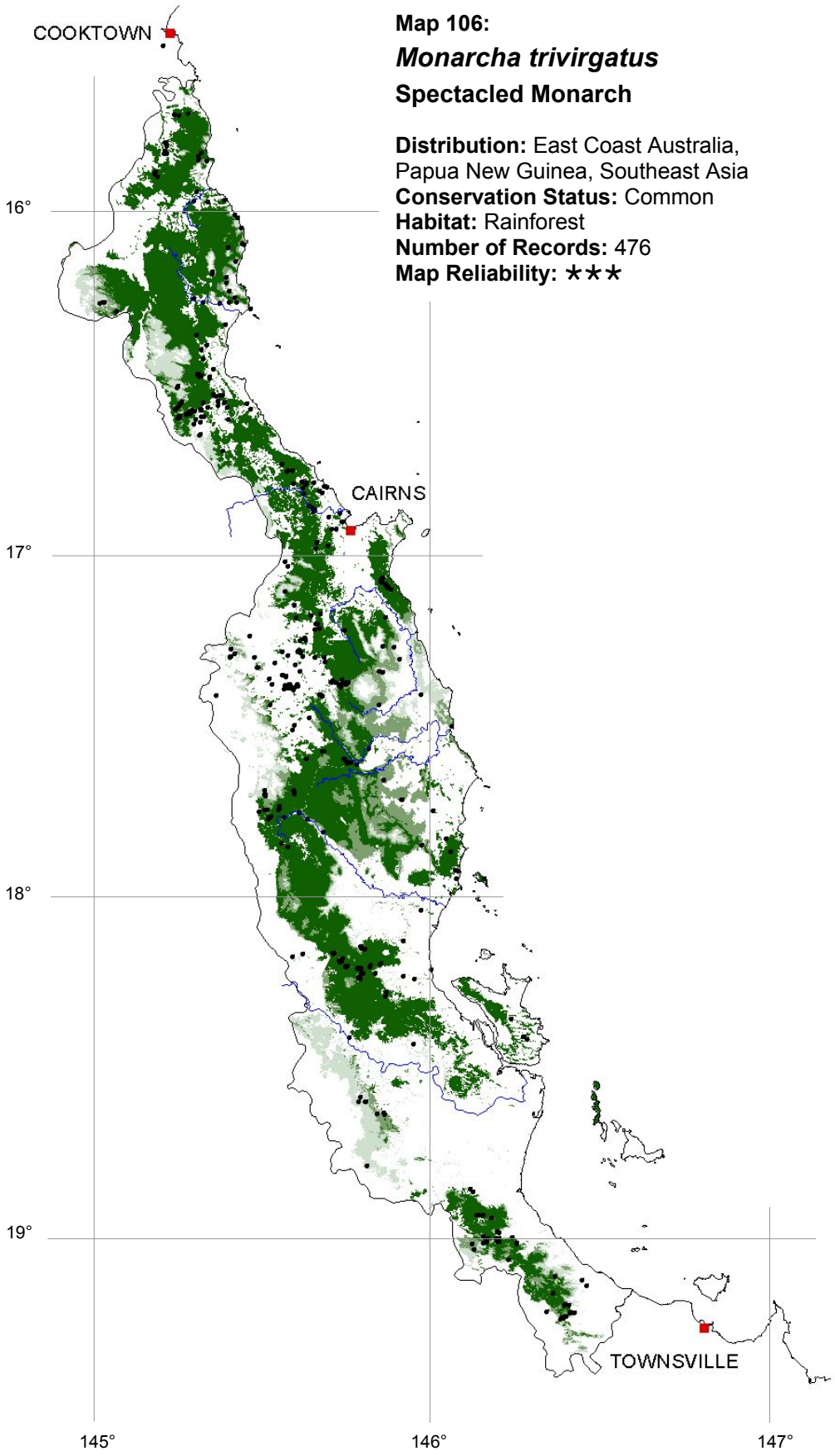


Map 105:

Monarcha melanopsis

Black-faced Monarch

Distribution: Eastern Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 235
Map Reliability: ★★★

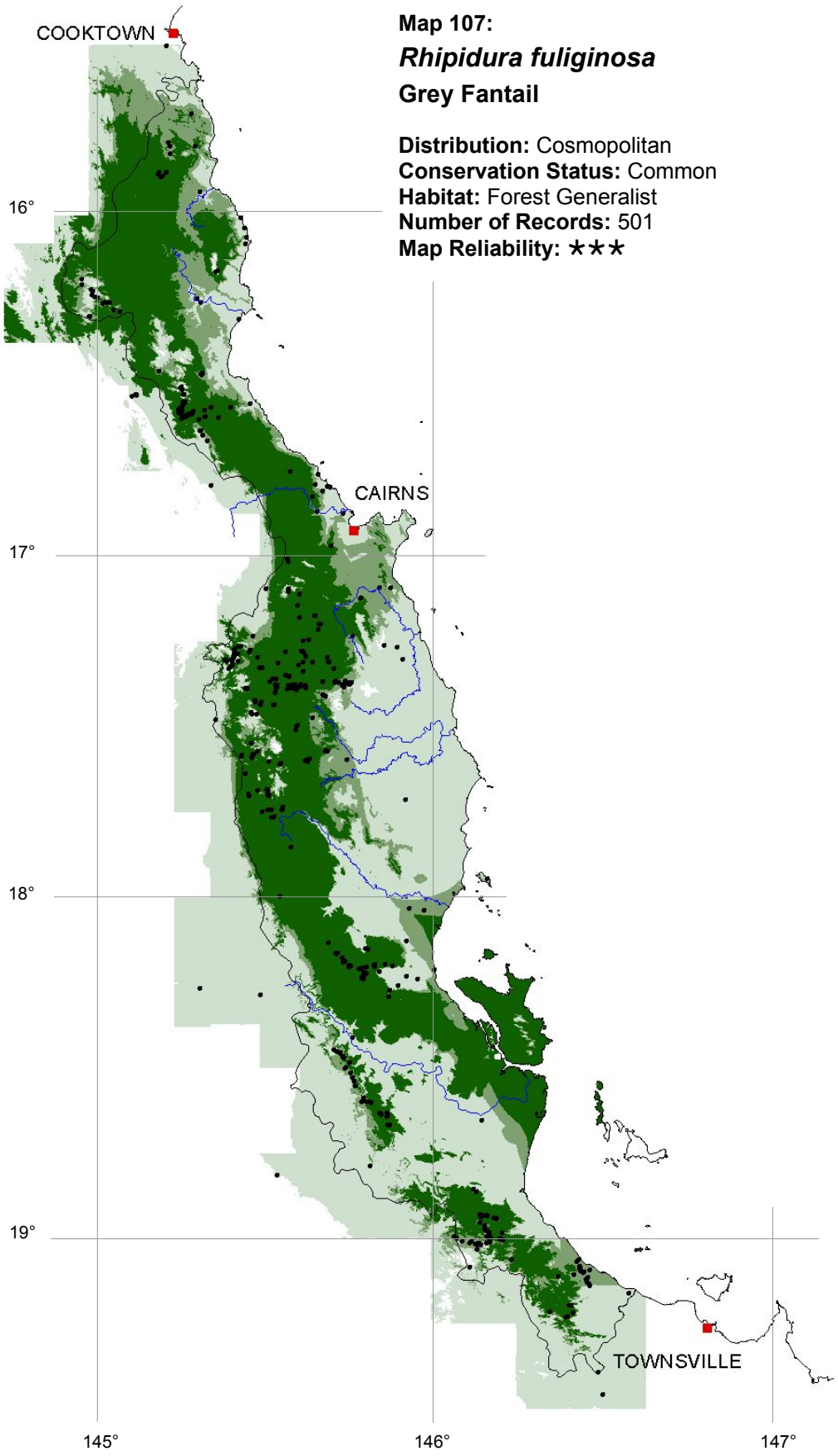


Map 106:

Monarcha trivirgatus

Spectacled Monarch

Distribution: East Coast Australia, Papua New Guinea, Southeast Asia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 476
Map Reliability: ★★★

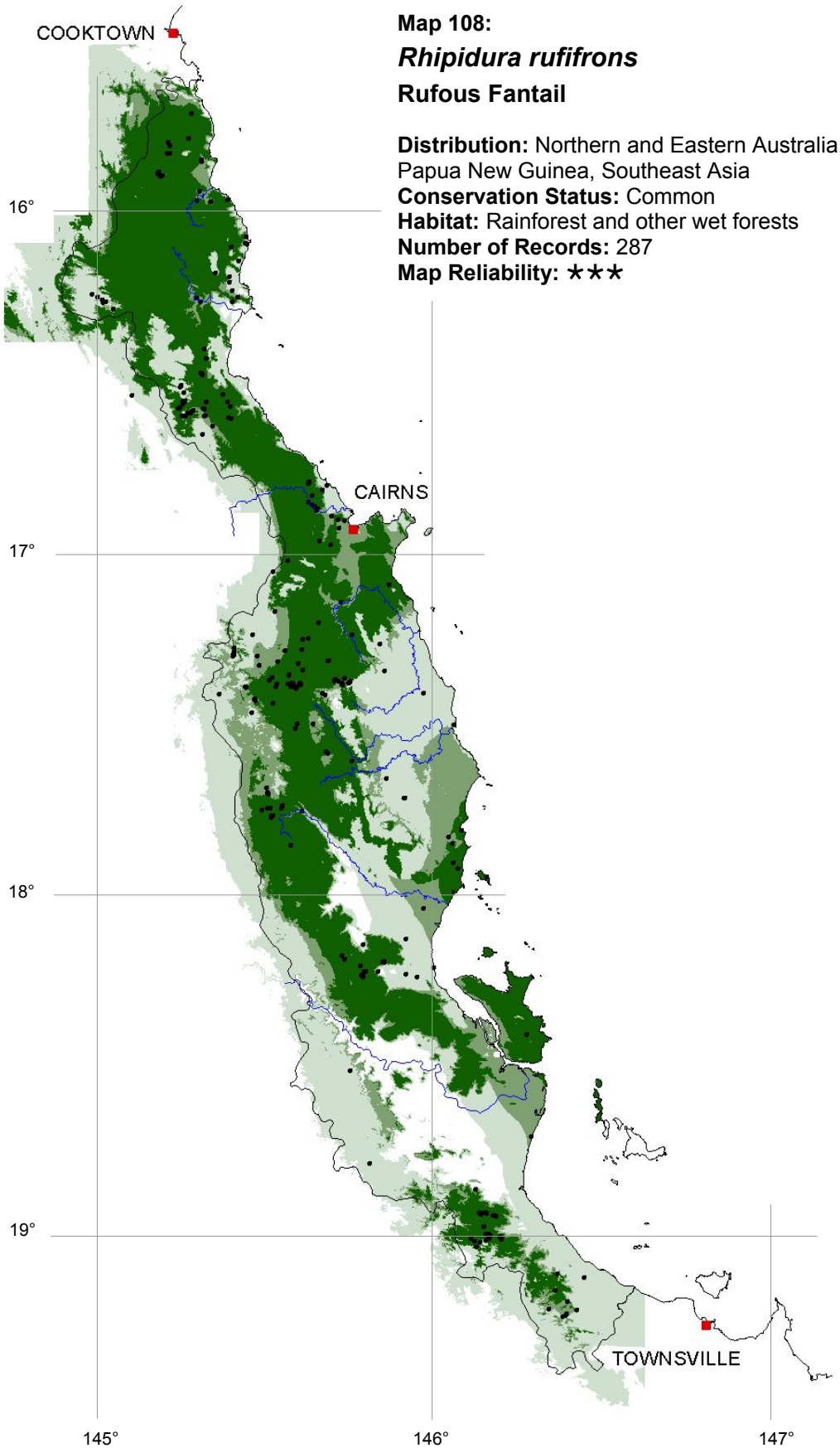


Map 107:

Rhipidura fuliginosa

Grey Fantail

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 501
Map Reliability: ★★★

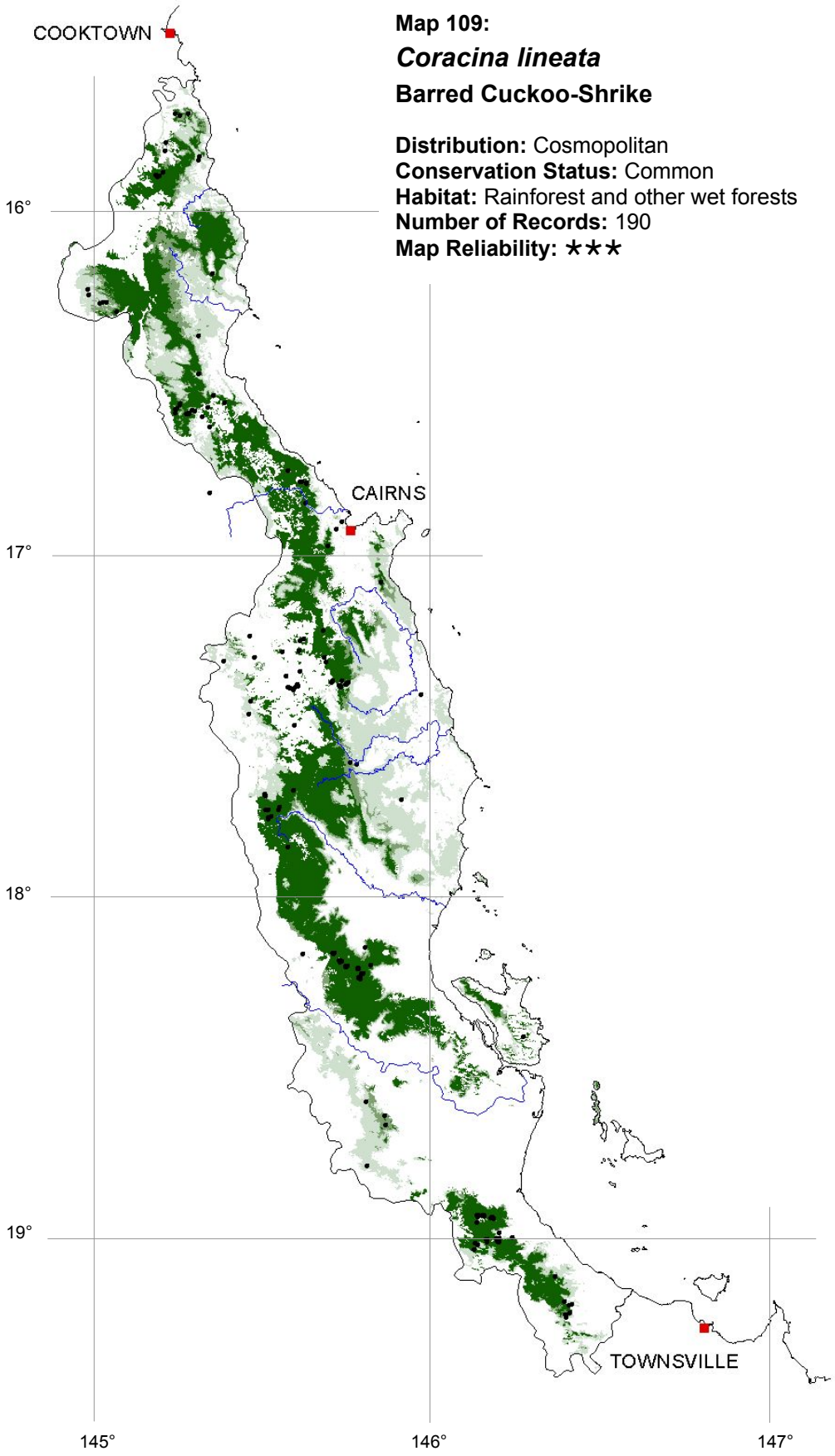


Map 108:

Rhipidura rufifrons

Rufous Fantail

Distribution: Northern and Eastern Australia, Papua New Guinea, Southeast Asia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 287
Map Reliability: ★★★

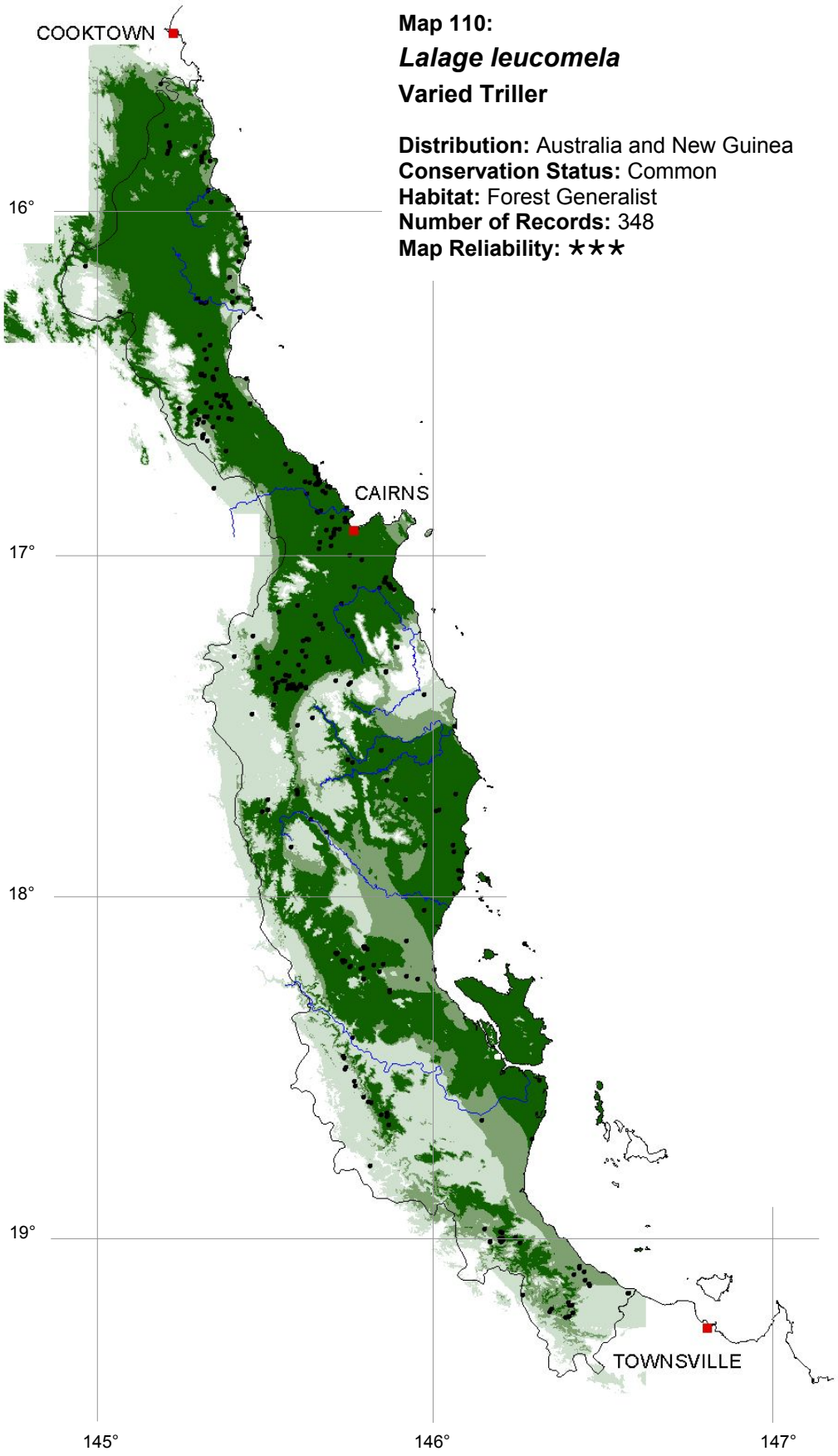


Map 109:

Coracina lineata

Barred Cuckoo-Shrike

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 190
Map Reliability: ★★★

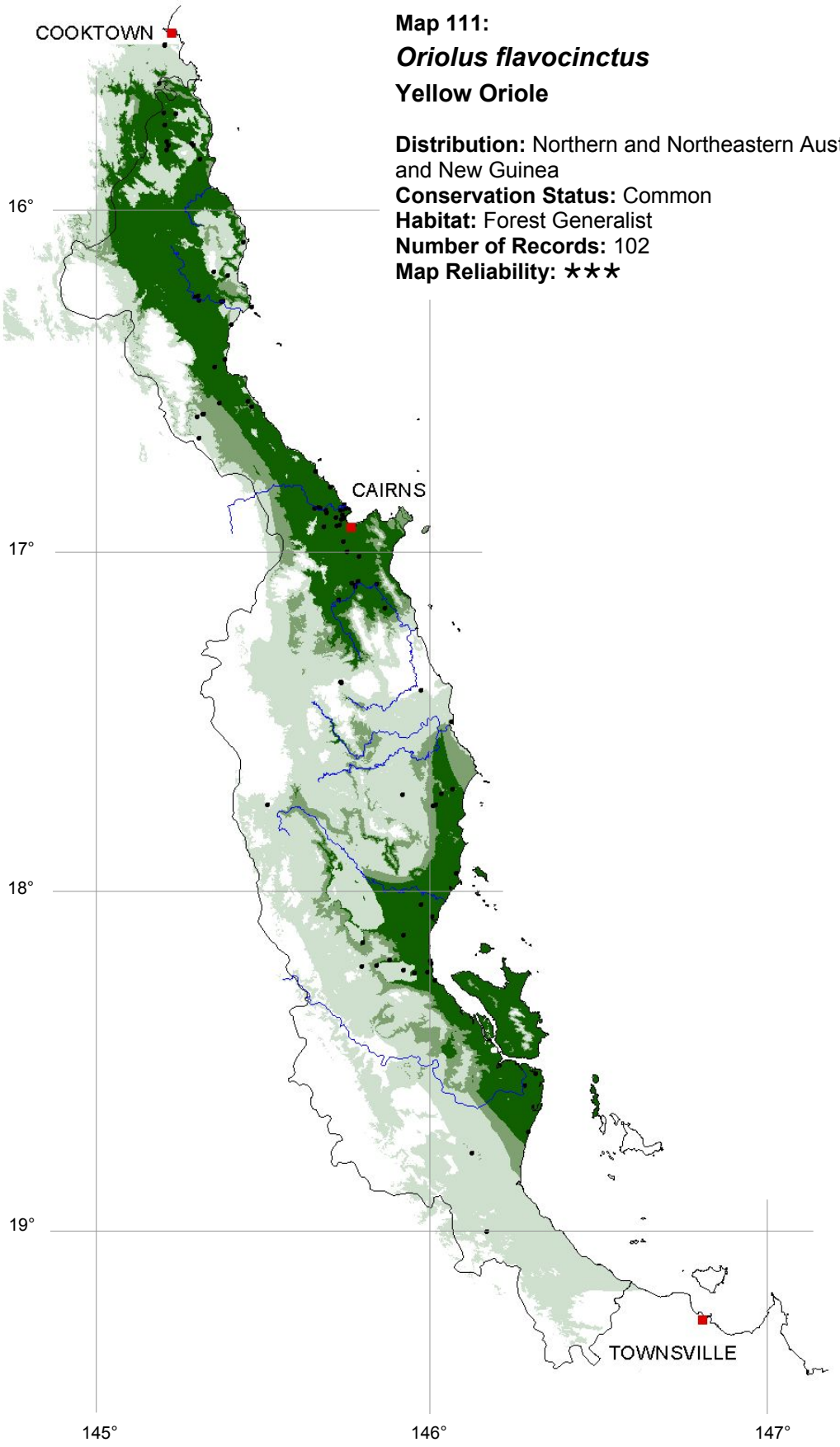


Map 110:

Lalage leucomela

Varied Triller

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 348
Map Reliability: ★★★

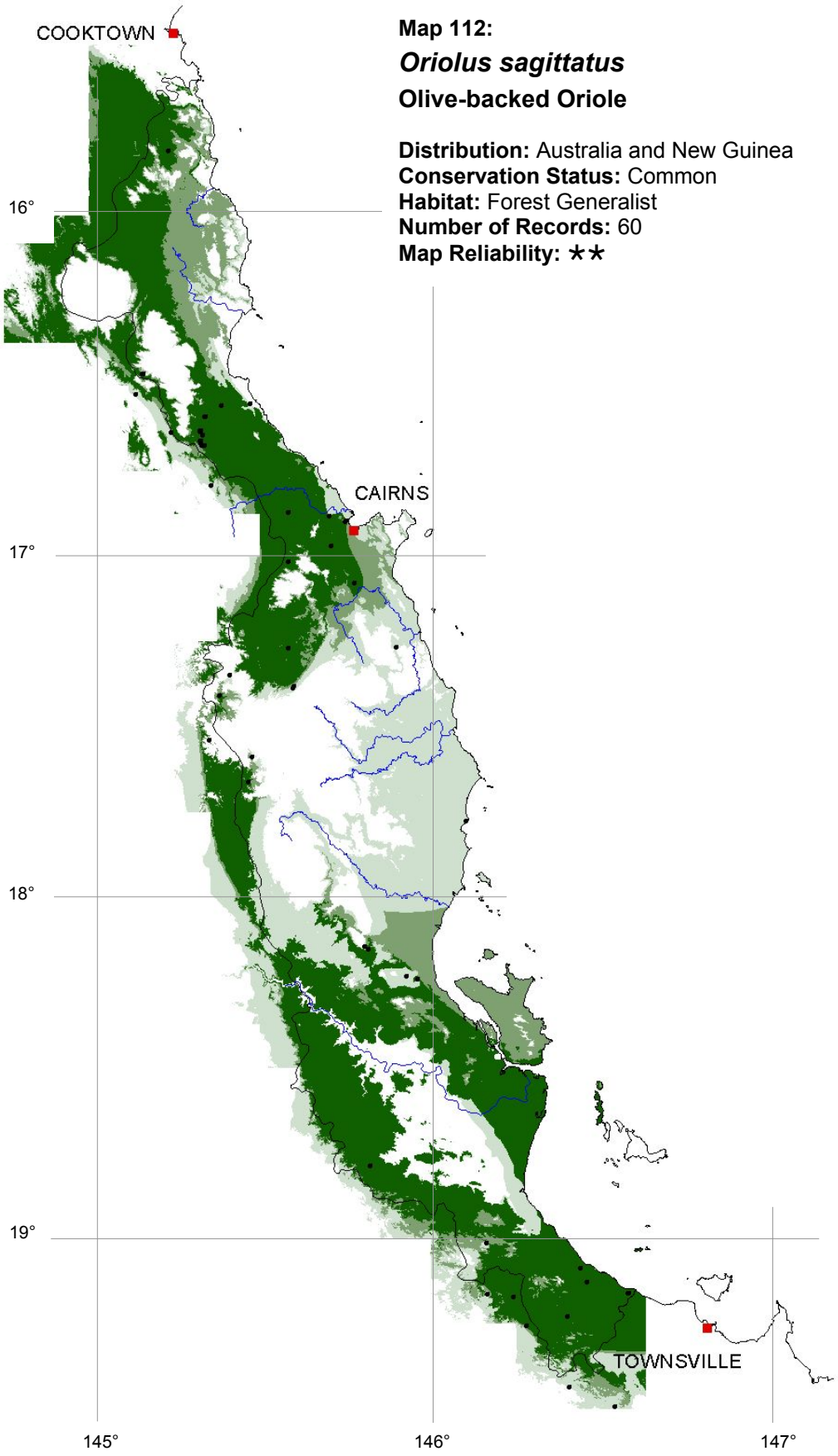


Map 111:

Oriolus flavocinctus

Yellow Oriole

Distribution: Northern and Northeastern Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 102
Map Reliability: ★★★

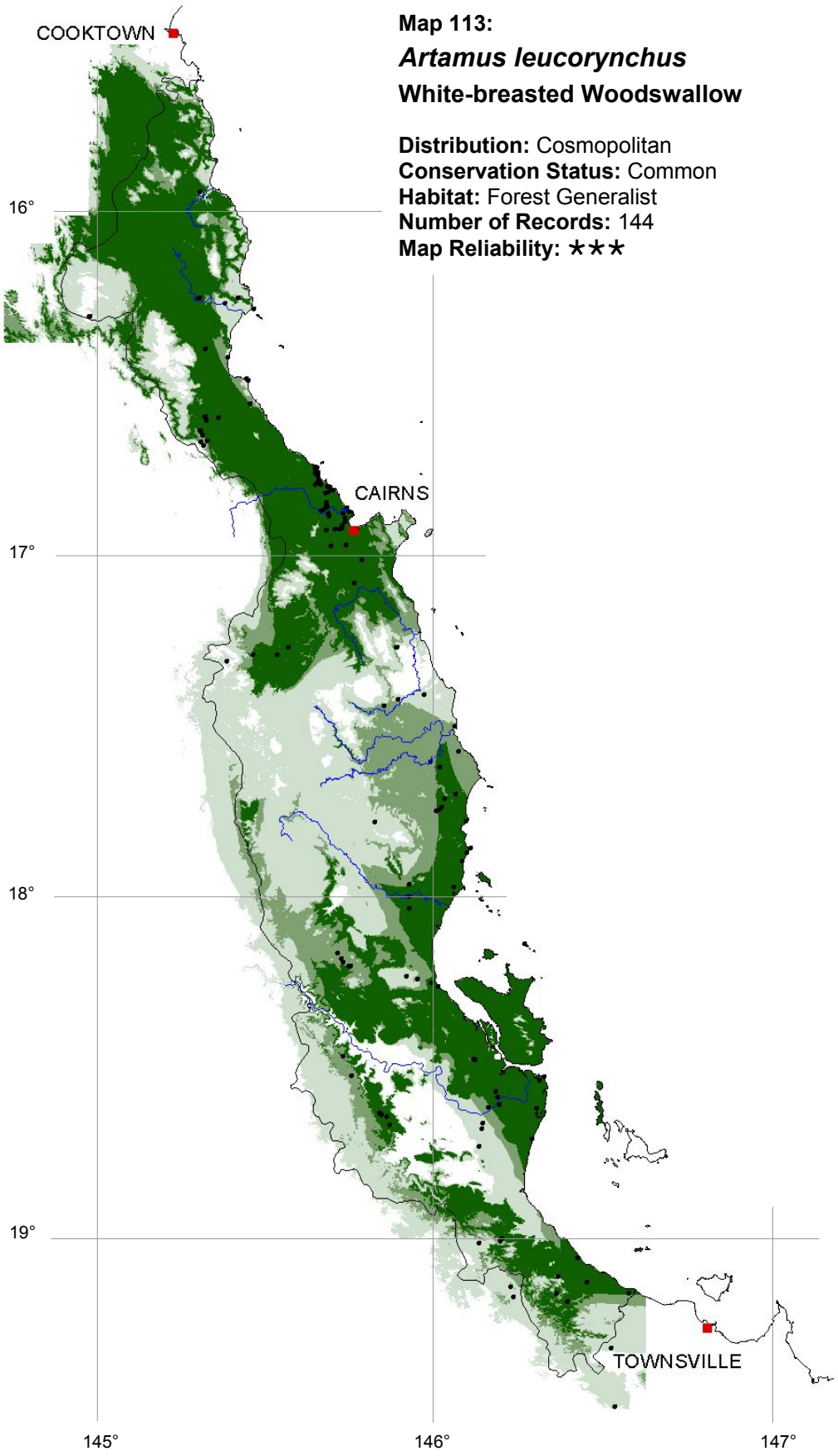


Map 112:

Oriolus sagittatus

Olive-backed Oriole

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 60
Map Reliability: ★★

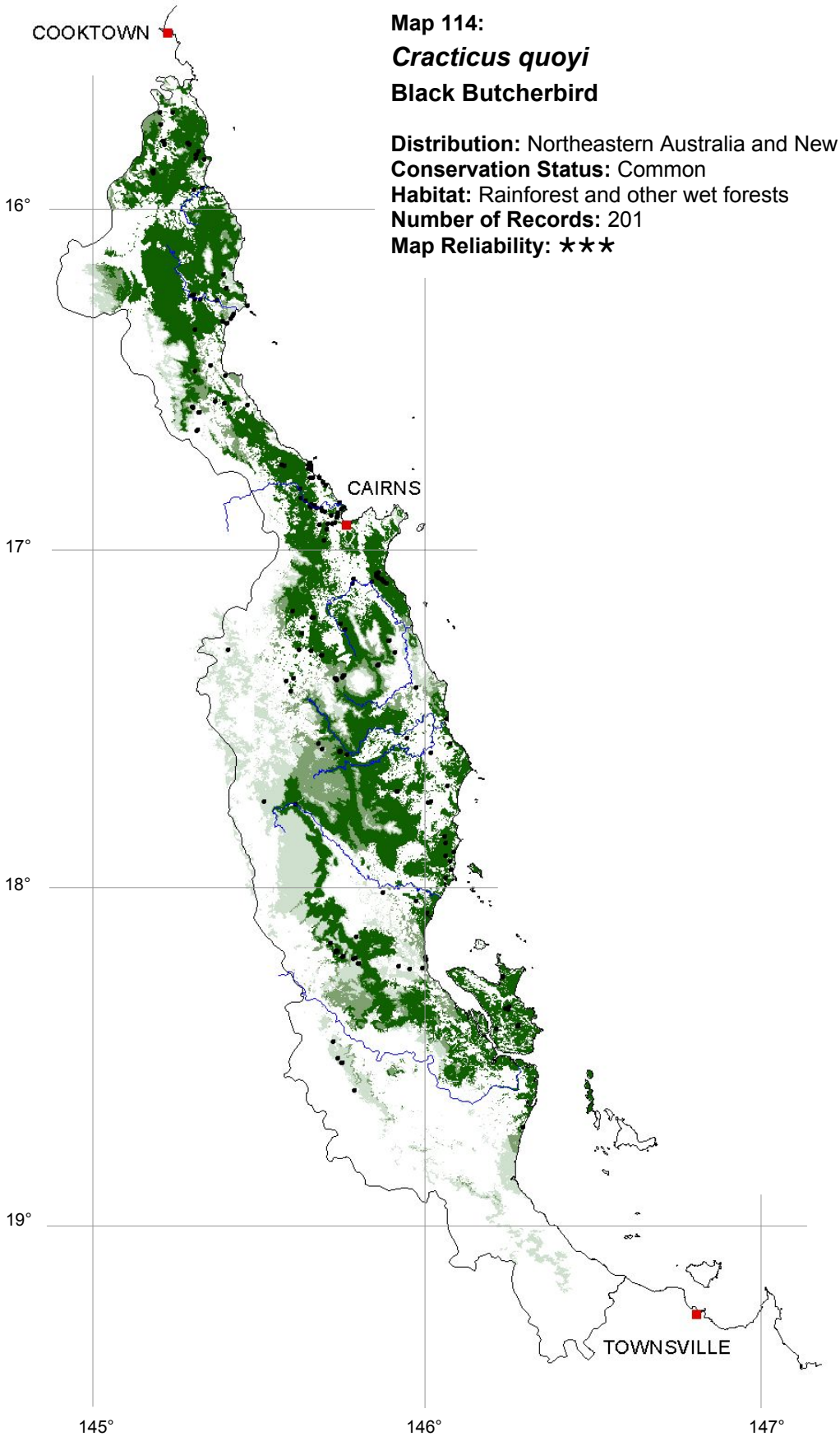


Map 113:

Artamus leucorynchus

White-breasted Woodswallow

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 144
Map Reliability: ★★★

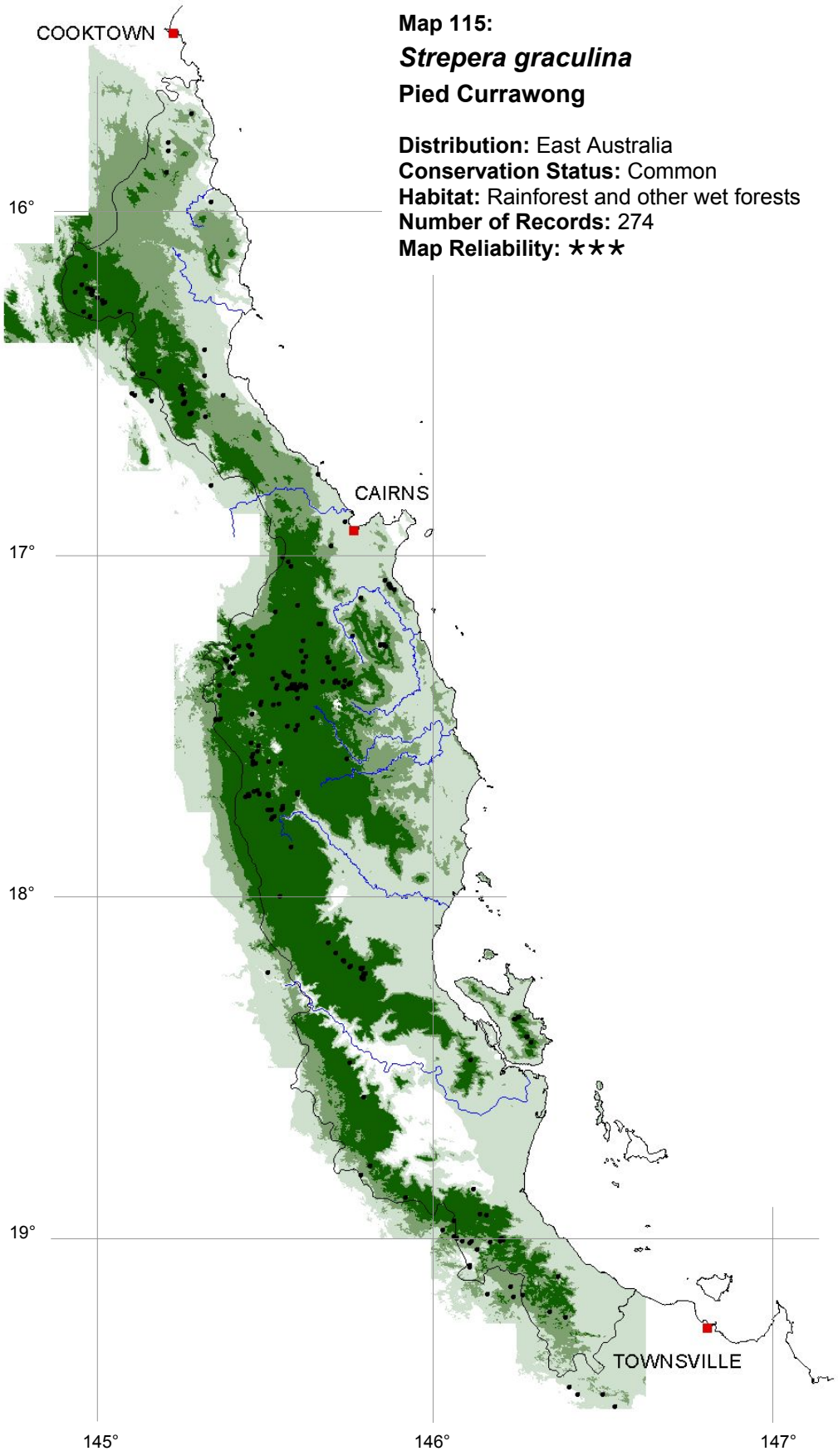


Map 114:

Cracticus quoyi

Black Butcherbird

Distribution: Northeastern Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 201
Map Reliability: ★★★

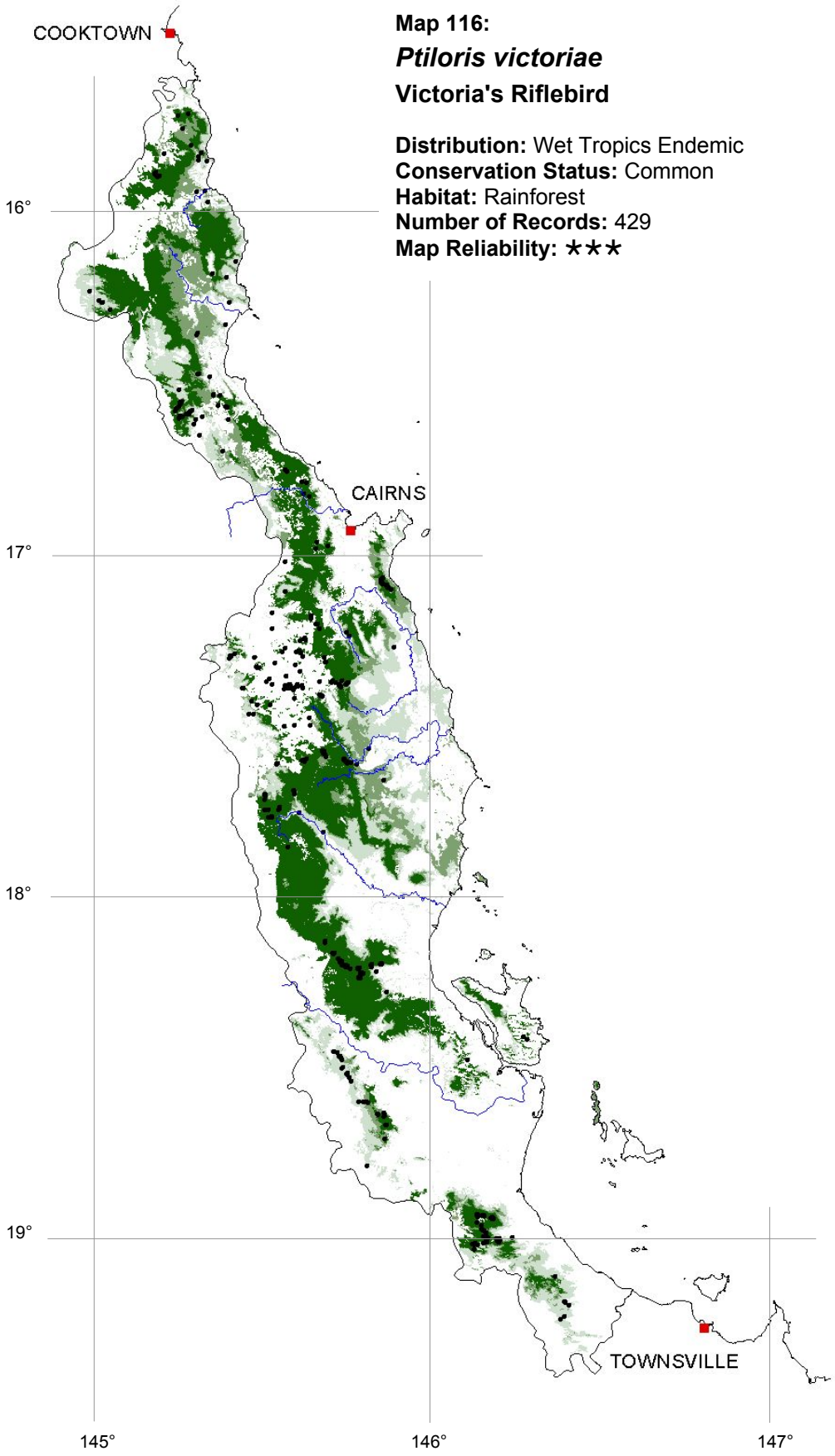


Map 115:

Strepera graculina

Pied Currawong

Distribution: East Australia
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 274
Map Reliability: ★★★

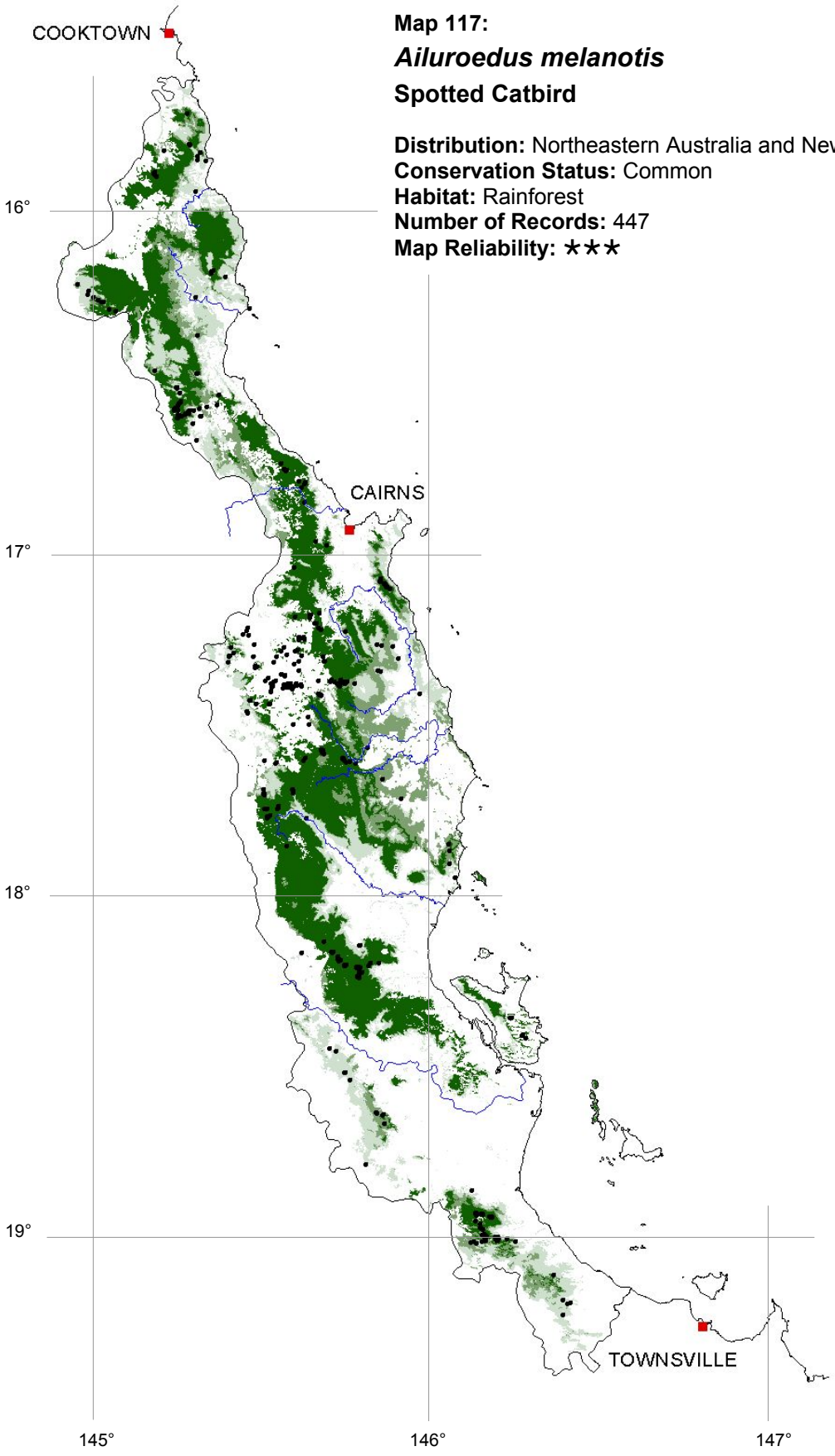


Map 116:

Ptiloris victoriae

Victoria's Riflebird

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 429
Map Reliability: ★★★

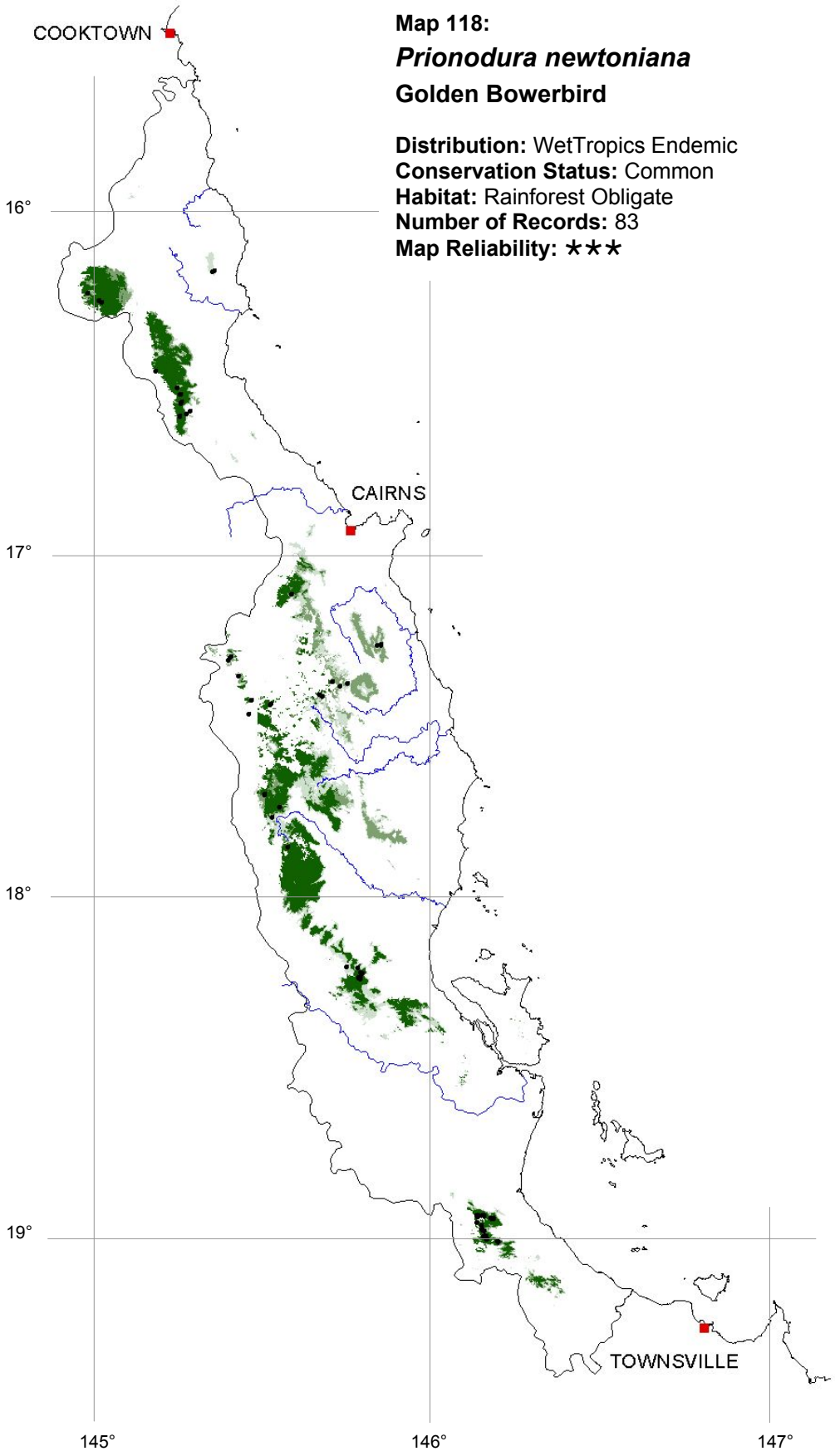


Map 117:

Ailuroedus melanotis

Spotted Catbird

Distribution: Northeastern Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest
Number of Records: 447
Map Reliability: ★★★

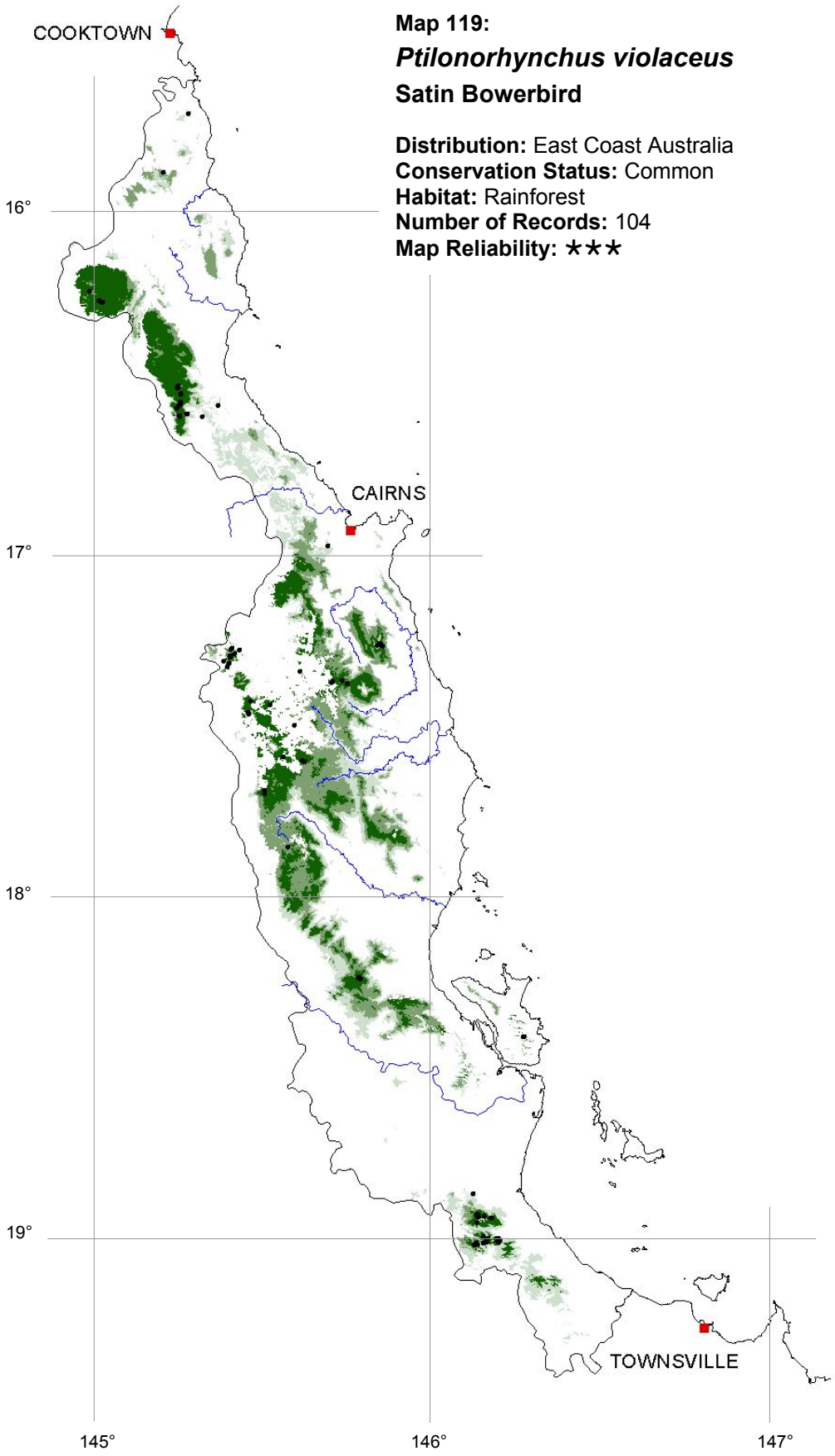


Map 118:

Prionodura newtoniana

Golden Bowerbird

Distribution: WetTropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 83
Map Reliability: ★★★

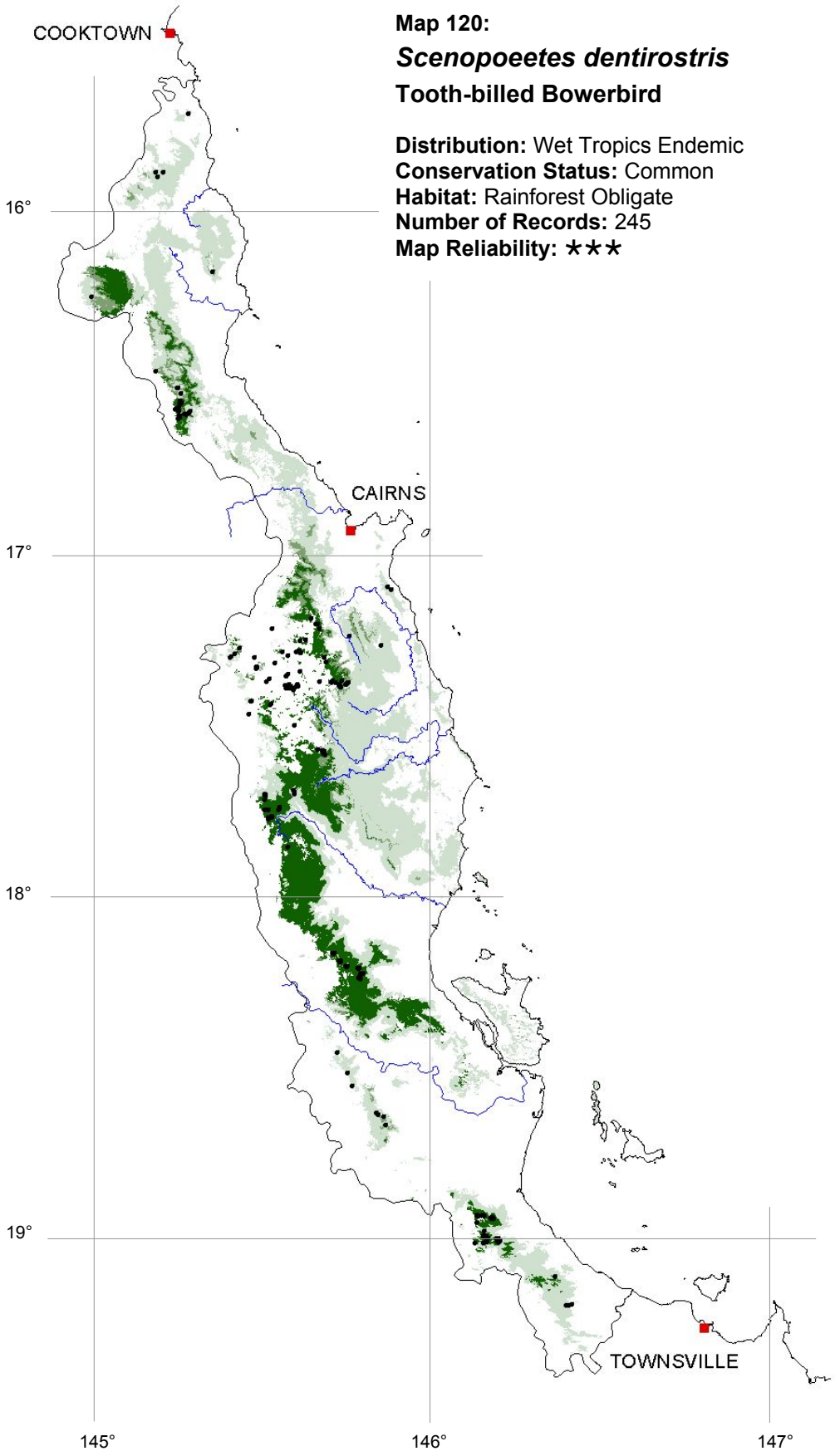


Map 119:

Ptilonorhynchus violaceus

Satin Bowerbird

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 104
Map Reliability: ★★★

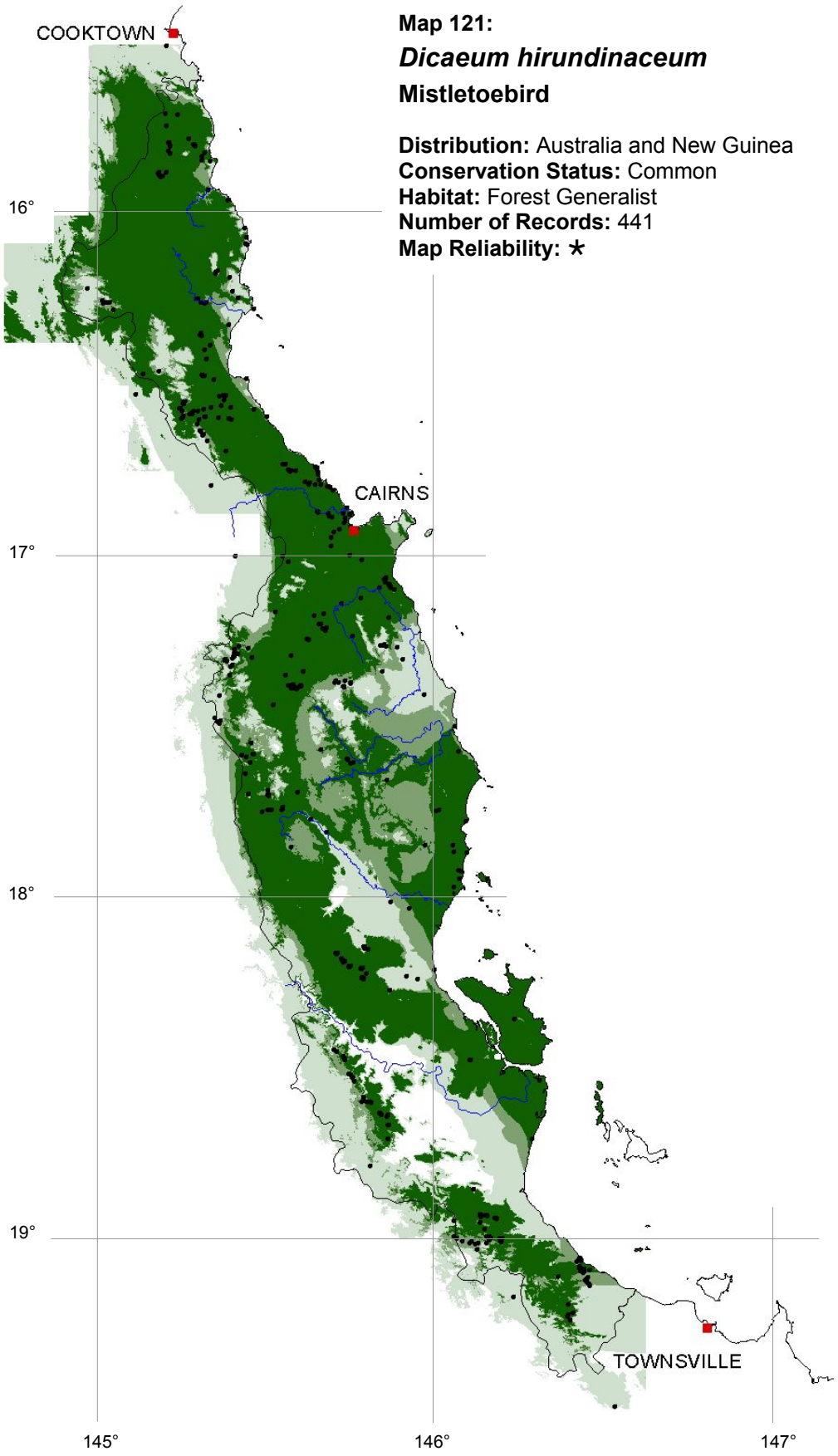


Map 120:

Scenopoeetes dentirostris

Tooth-billed Bowerbird

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 245
Map Reliability: ★★★

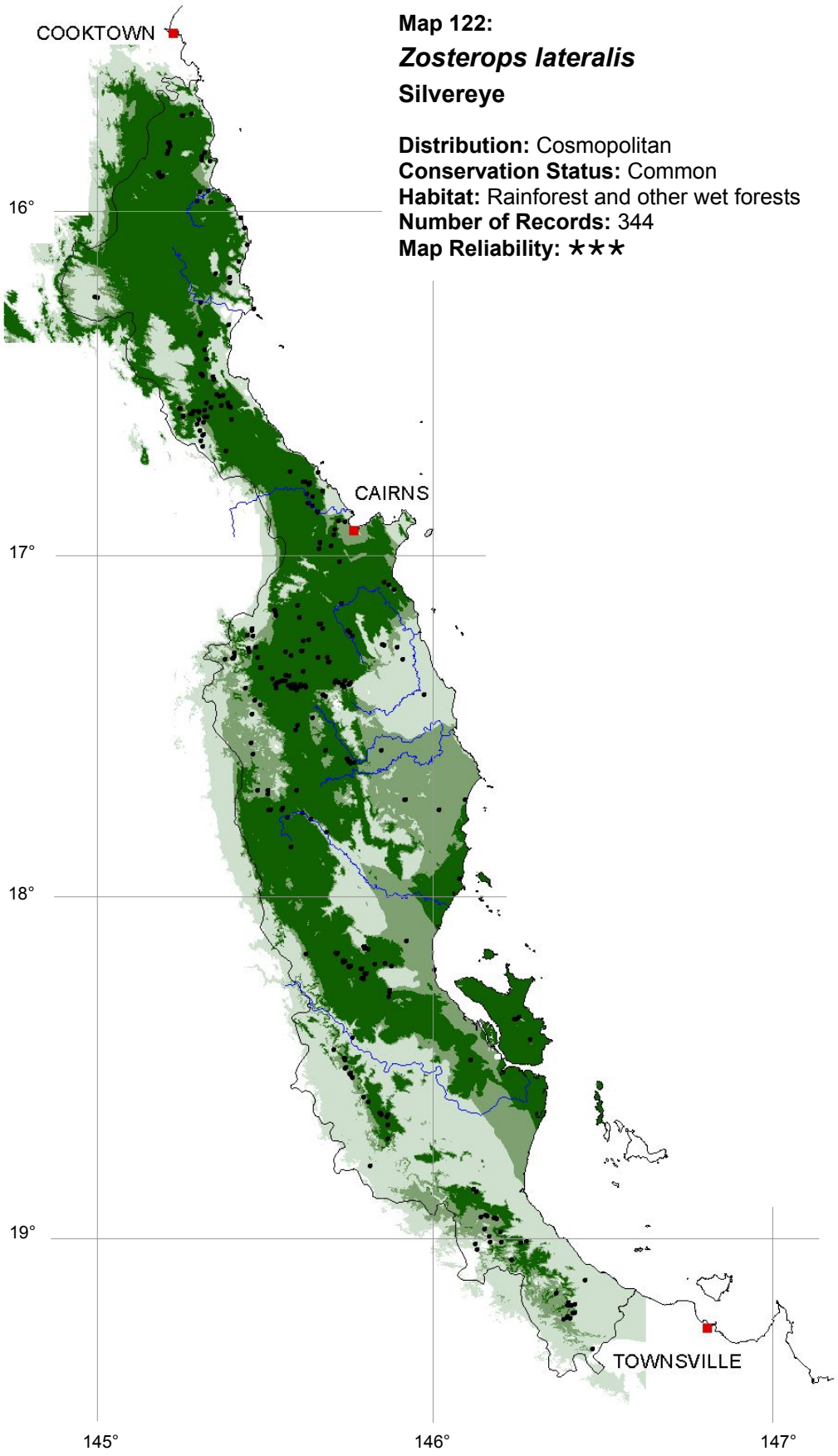


Map 121:

Dicaeum hirundinaceum

Mistletoebird

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 441
Map Reliability: ★

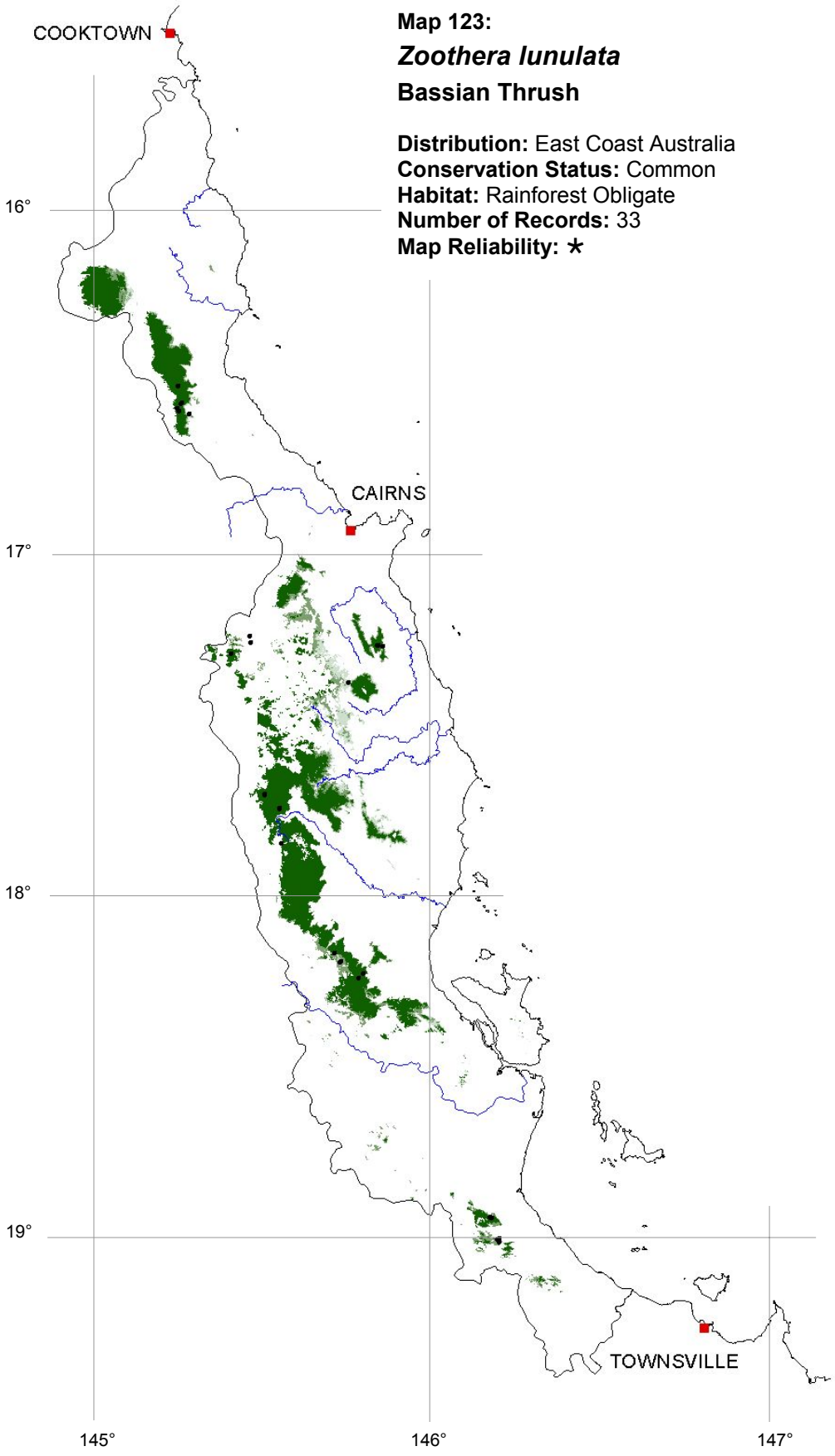


Map 122:

Zosterops lateralis

Silvereye

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 344
Map Reliability: ★★★

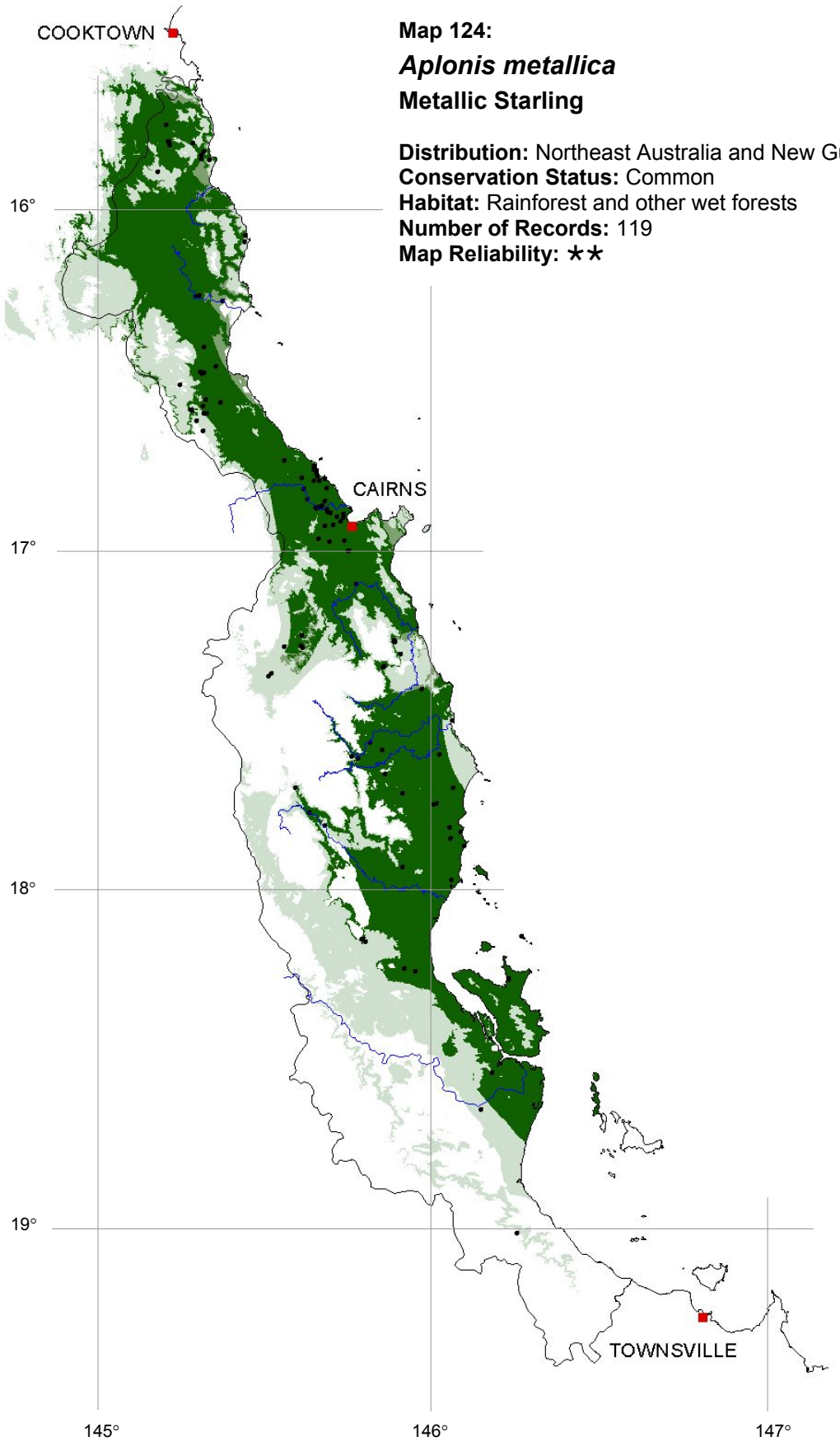


Map 123:

Zoothera lunulata

Bassian Thrush

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 33
Map Reliability: ★

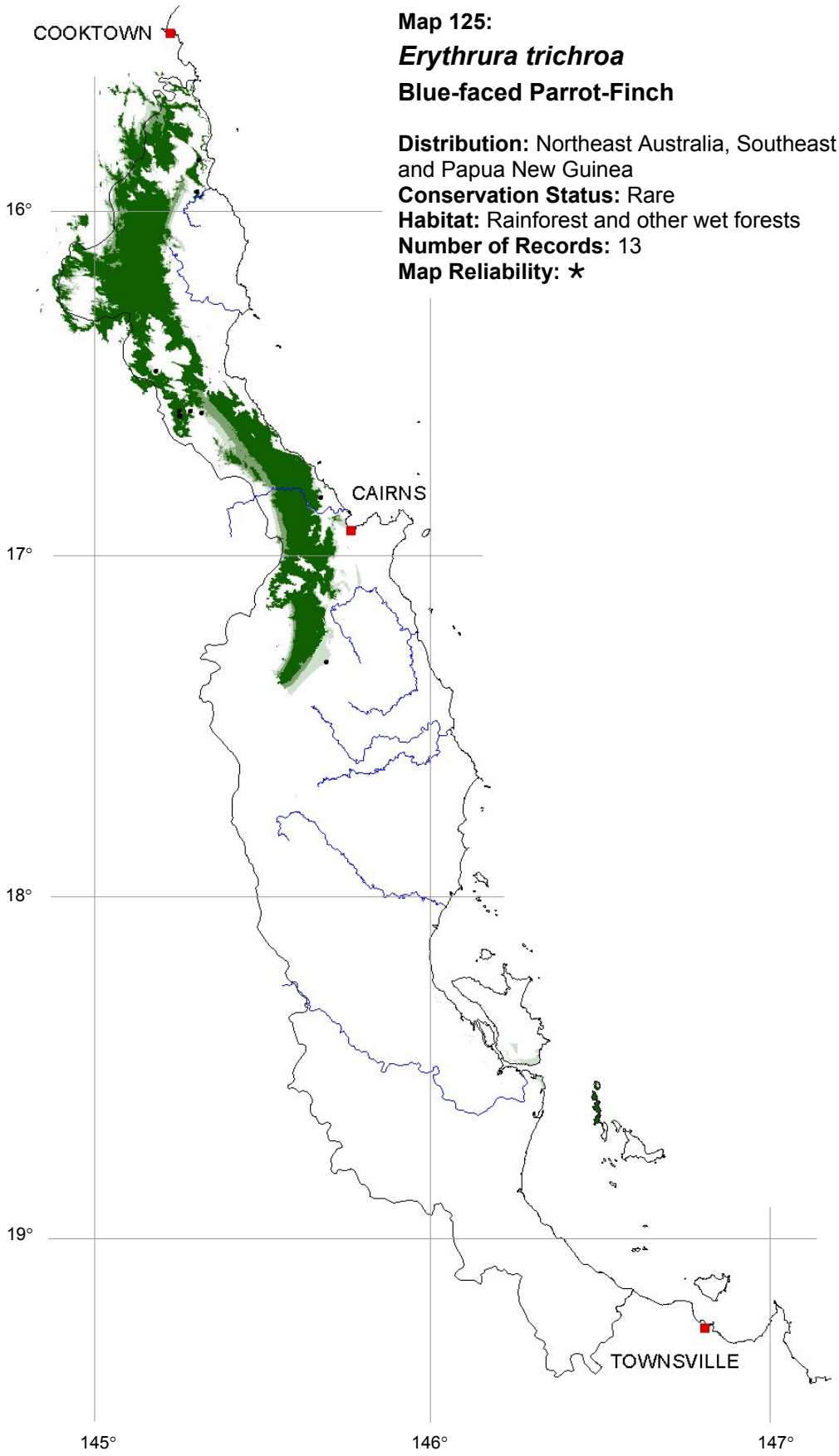


Map 124:

Aplonis metallica

Metallic Starling

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 119
Map Reliability: ★★



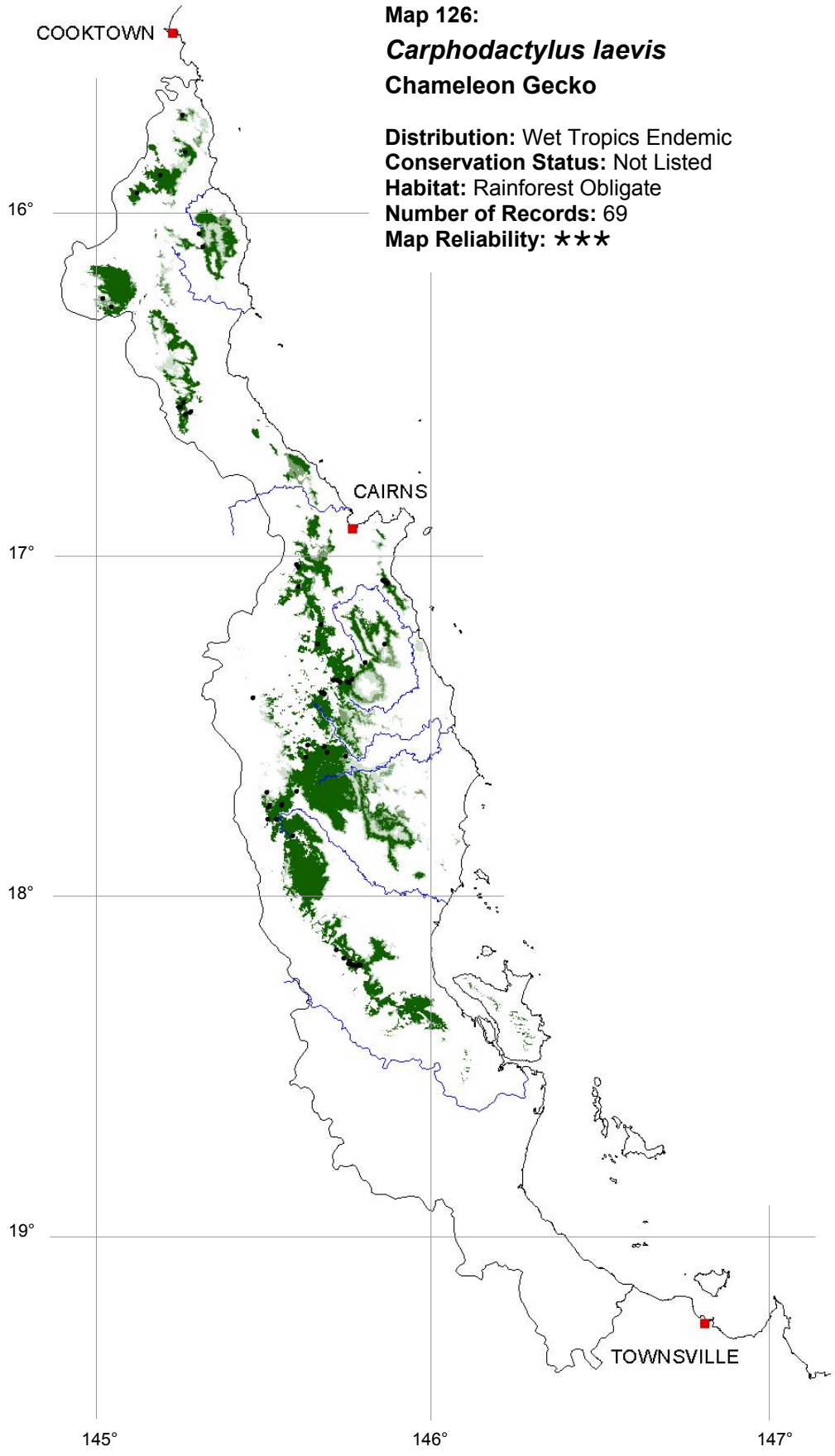
Map 125:

Erythrura trichroa

Blue-faced Parrot-Finch

Distribution: Northeast Australia, Southeast Asia and Papua New Guinea
Conservation Status: Rare
Habitat: Rainforest and other wet forests
Number of Records: 13
Map Reliability: ✶

Reptiles

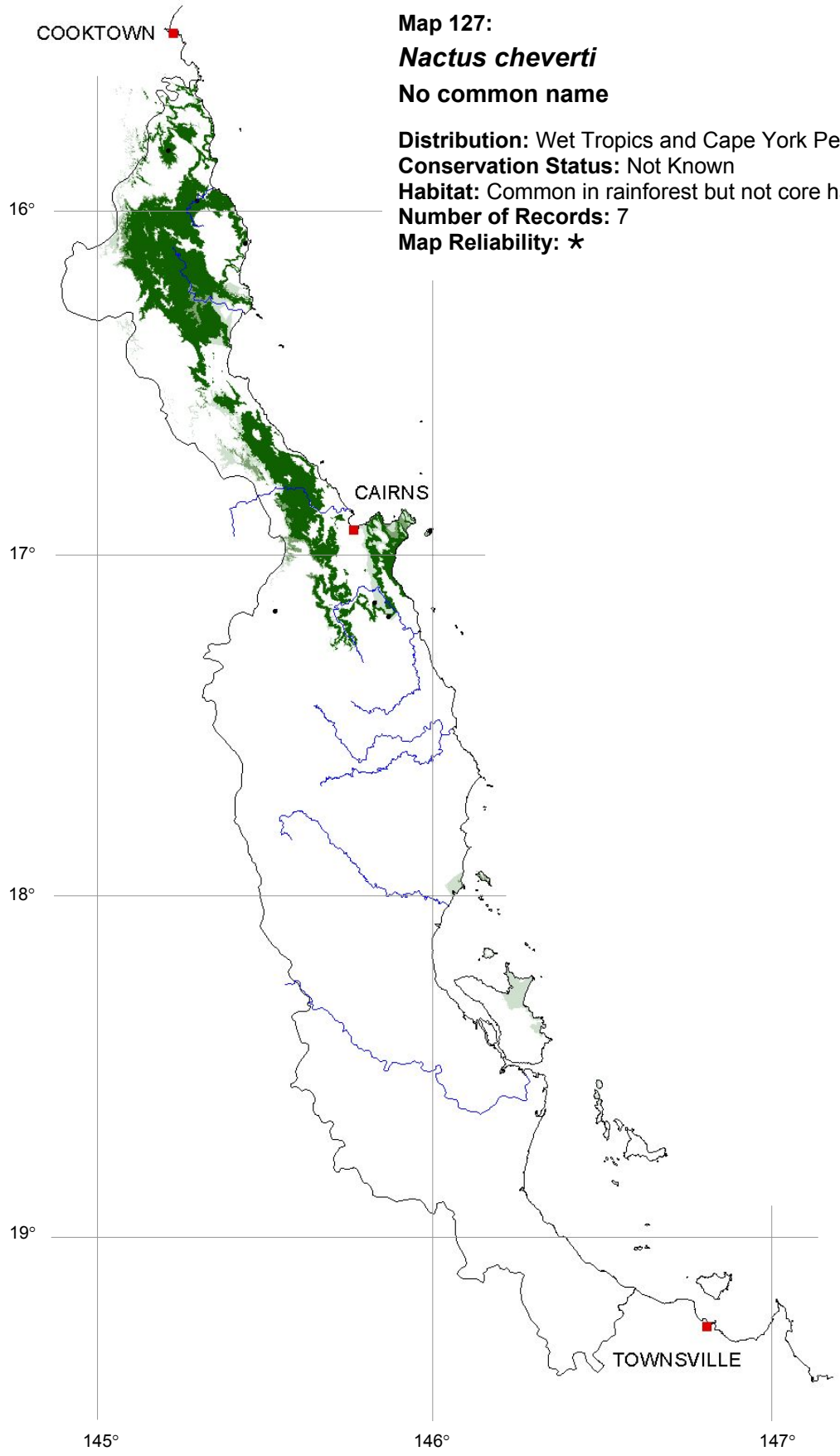


Map 126:

Carphodactylus laevis

Chameleon Gecko

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 69
Map Reliability: ★★★

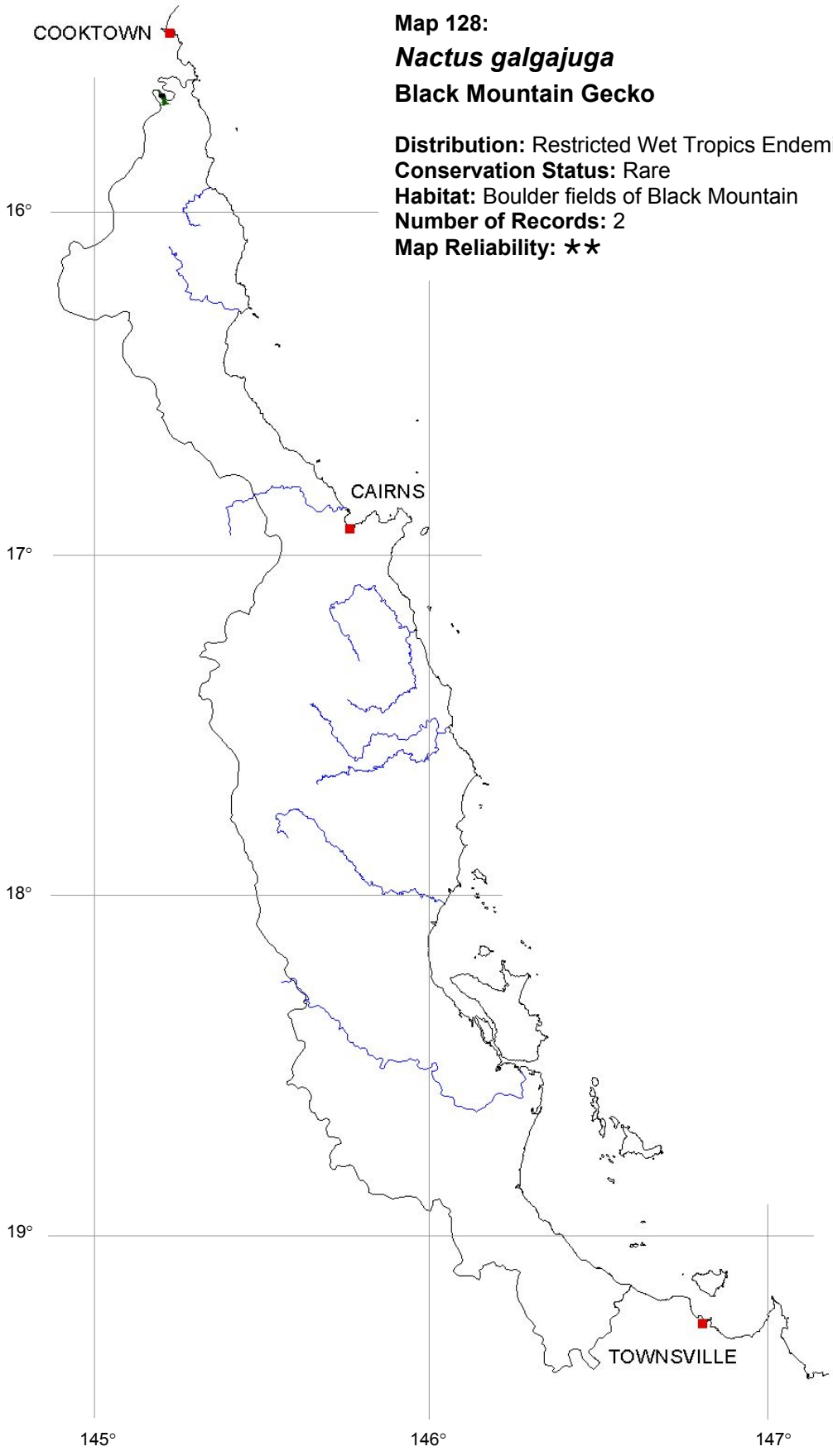


Map 127:

Nactus cheverti

No common name

Distribution: Wet Tropics and Cape York Peninsula
Conservation Status: Not Known
Habitat: Common in rainforest but not core habitat.
Number of Records: 7
Map Reliability: ★

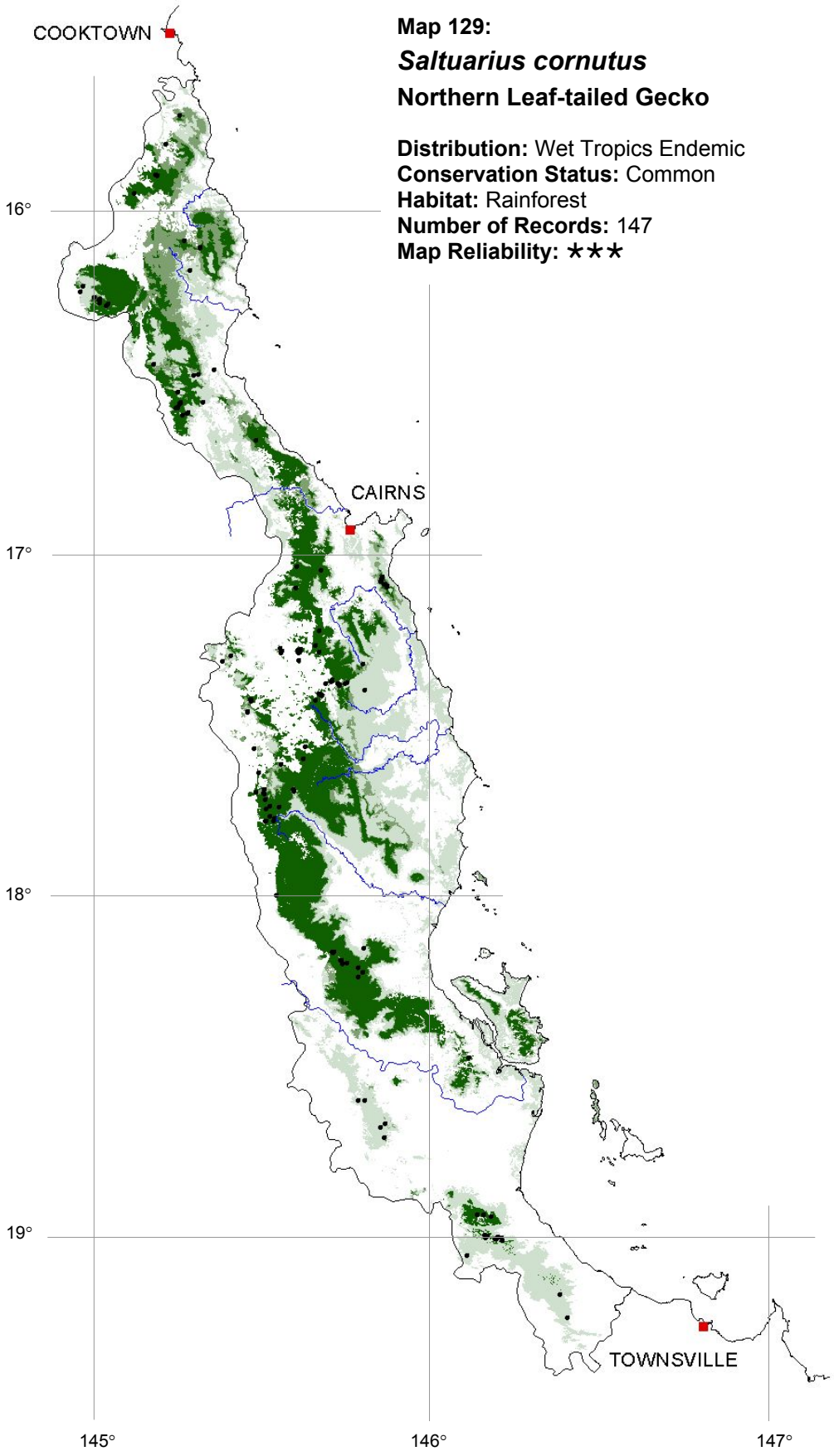


Map 128:

Nactus galgajuga

Black Mountain Gecko

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Boulder fields of Black Mountain
Number of Records: 2
Map Reliability: ★★

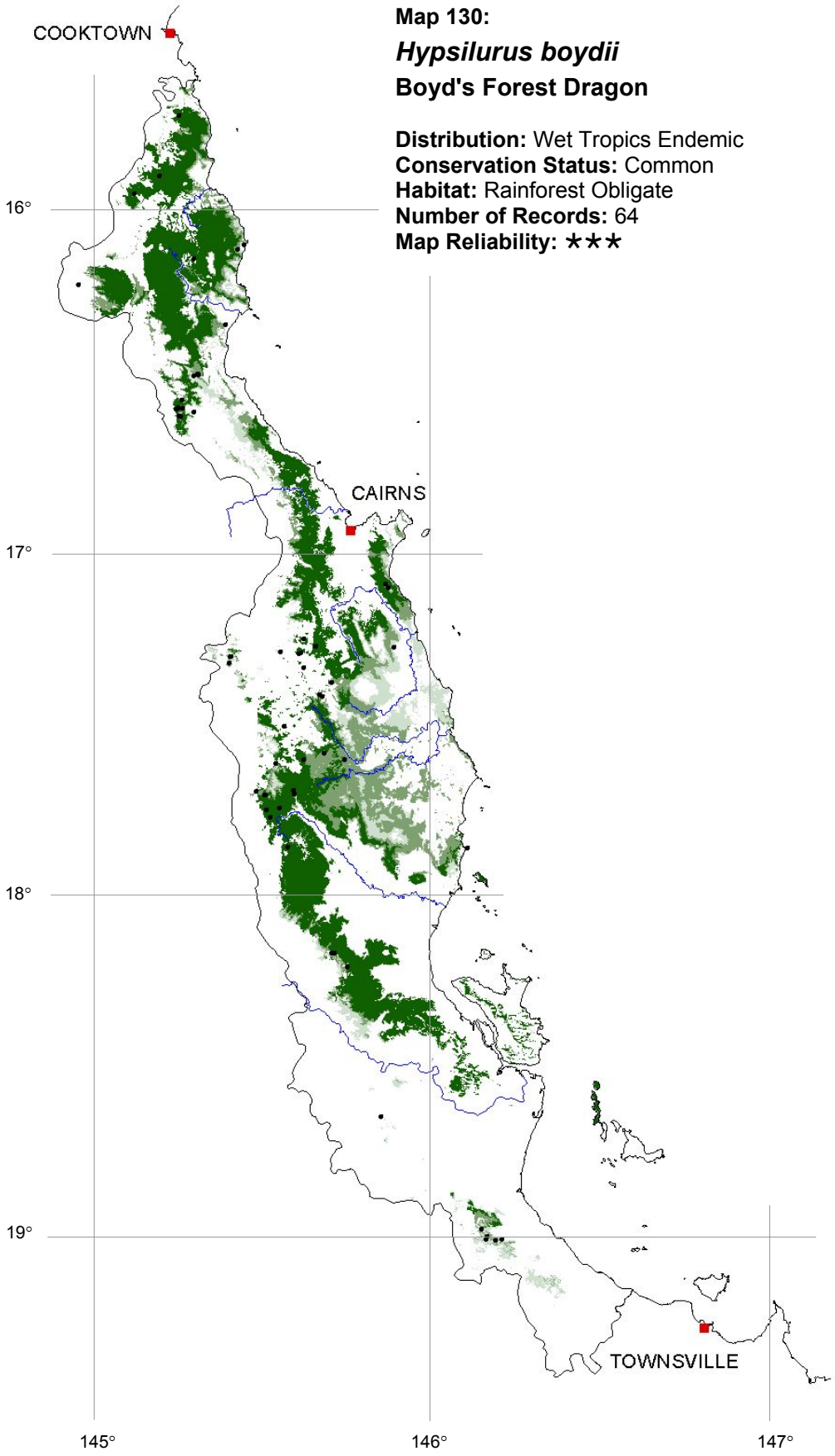


Map 129:

Saltuarius cornutus

Northern Leaf-tailed Gecko

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 147
Map Reliability: ★★★

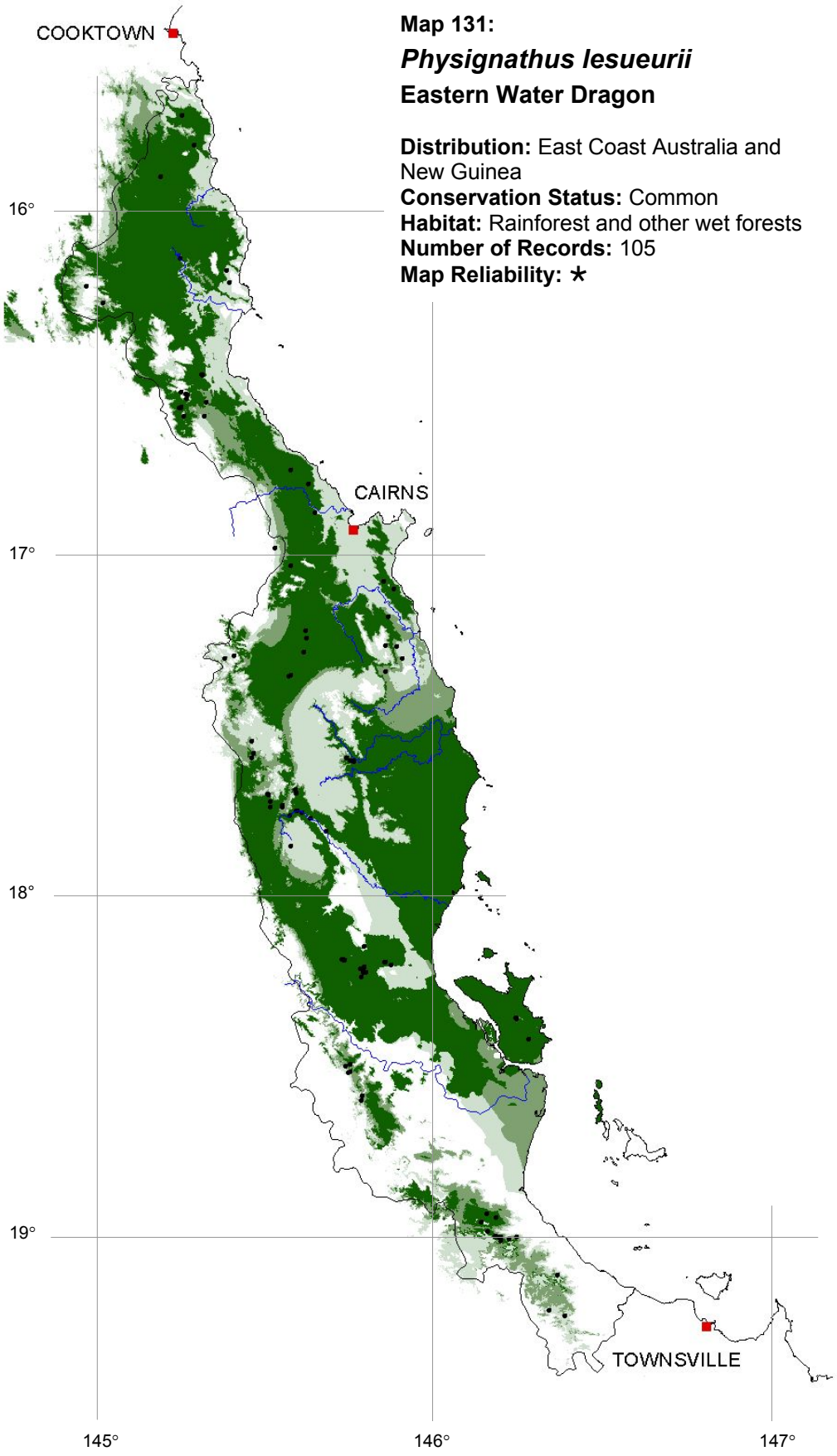


Map 130:

Hypsilurus boydii

Boyd's Forest Dragon

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 64
Map Reliability: ★★★

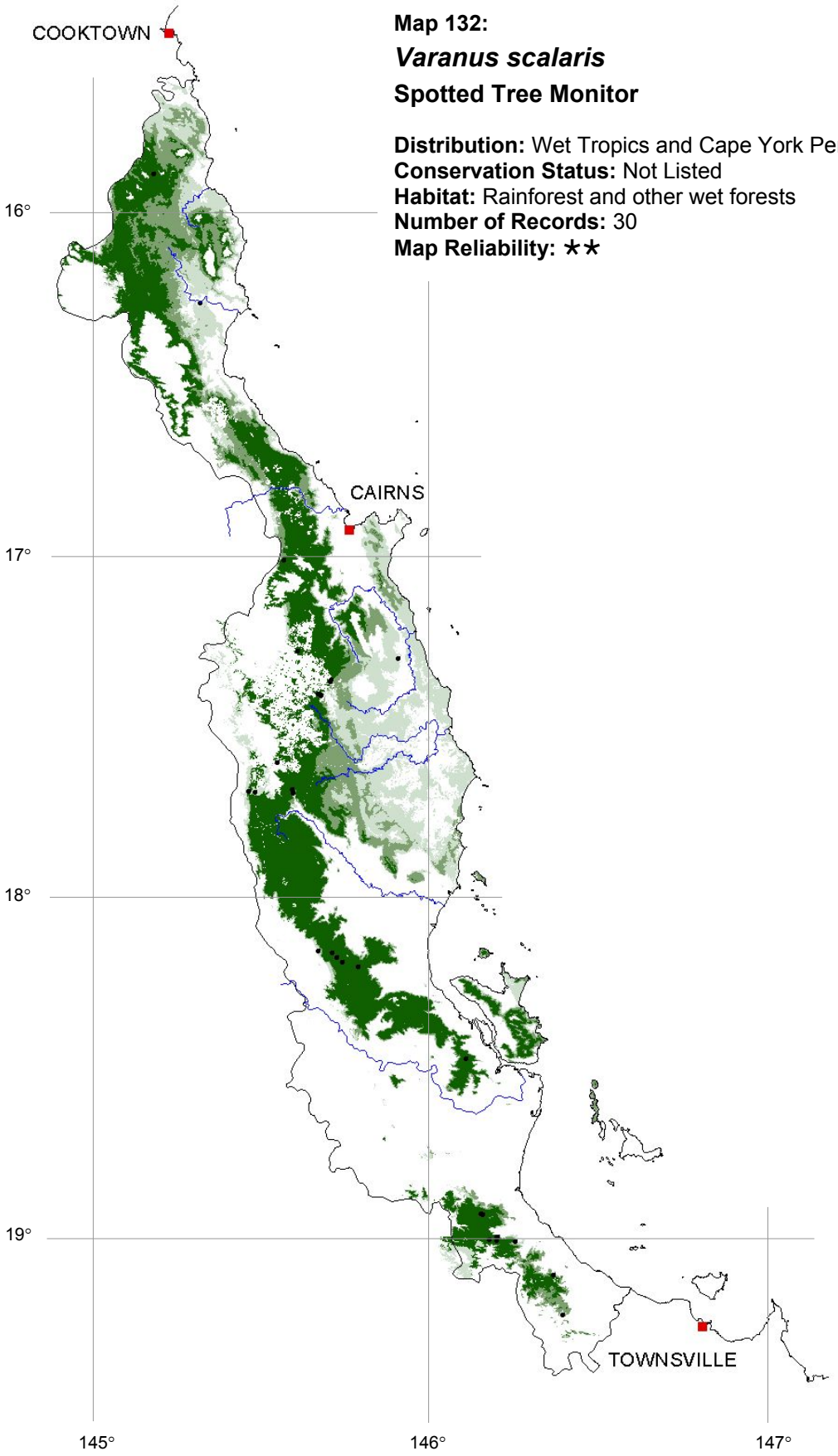


Map 131:

Physignathus lesueurii

Eastern Water Dragon

Distribution: East Coast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 105
Map Reliability: ★



Map 132:

Varanus scalaris

Spotted Tree Monitor

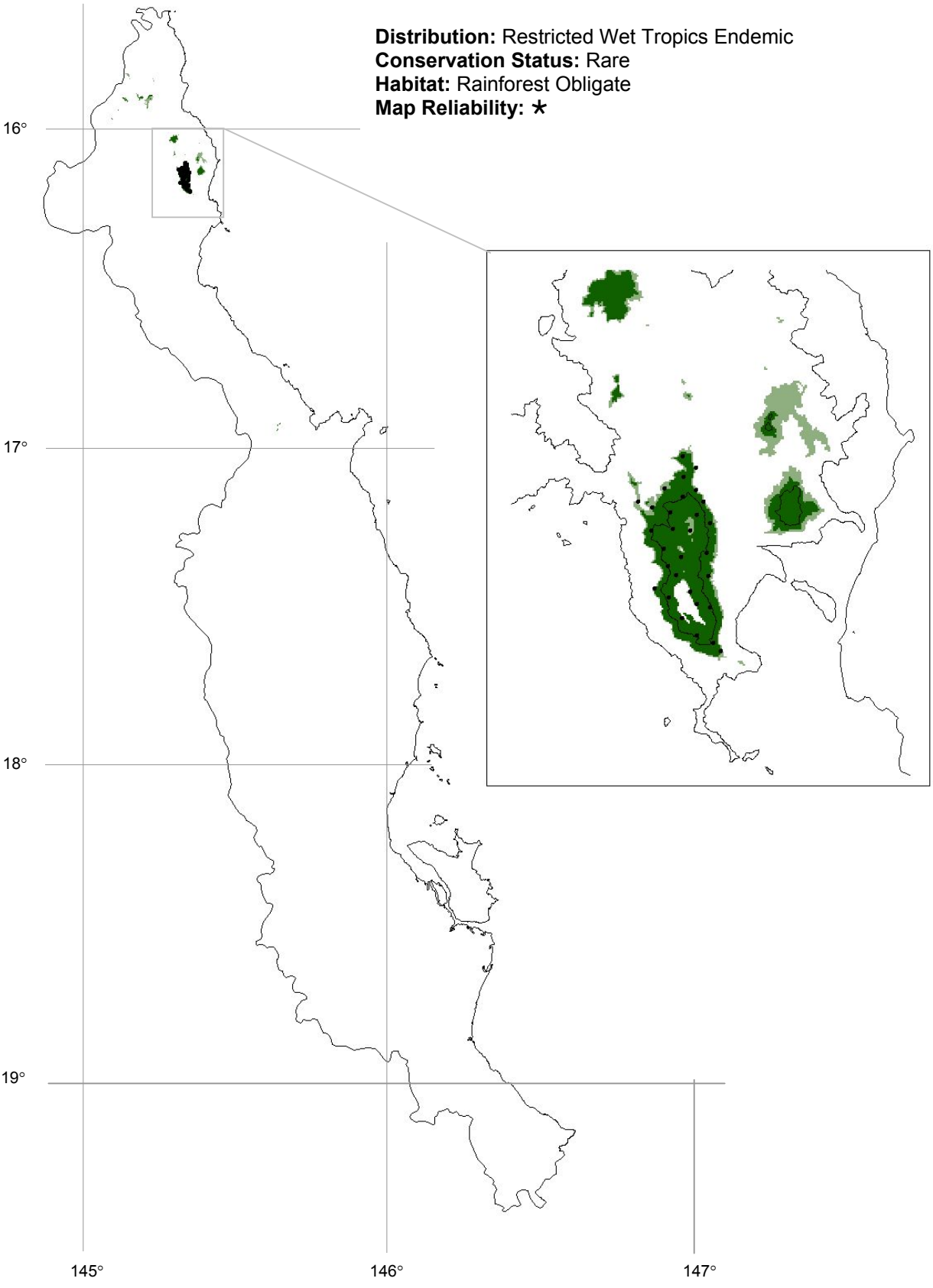
Distribution: Wet Tropics and Cape York Peninsula
Conservation Status: Not Listed
Habitat: Rainforest and other wet forests
Number of Records: 30
Map Reliability: ★★

Map 133:

Calyptotis thorntonensis

Thornton Peak Skink

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Map Reliability: ★

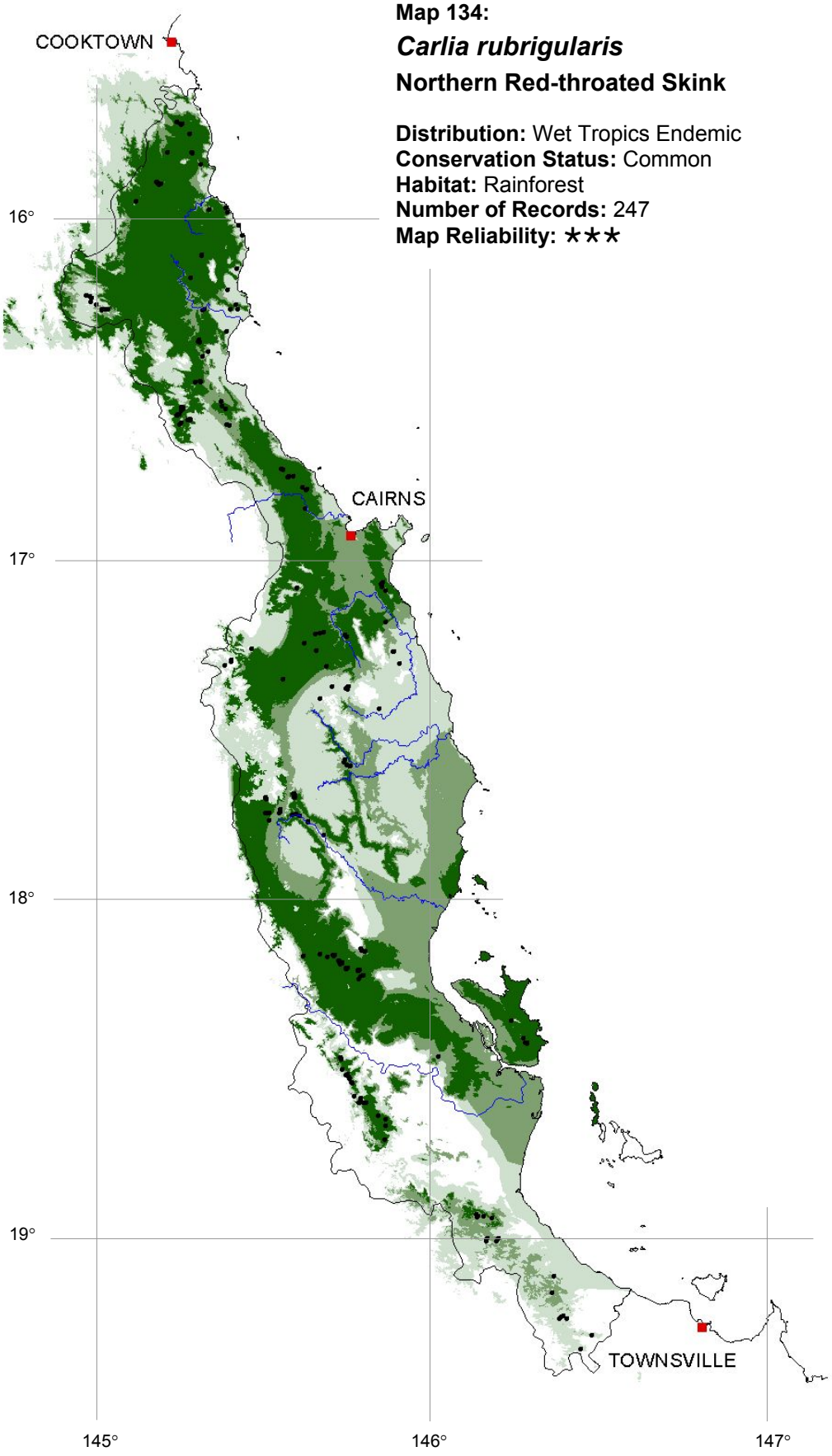


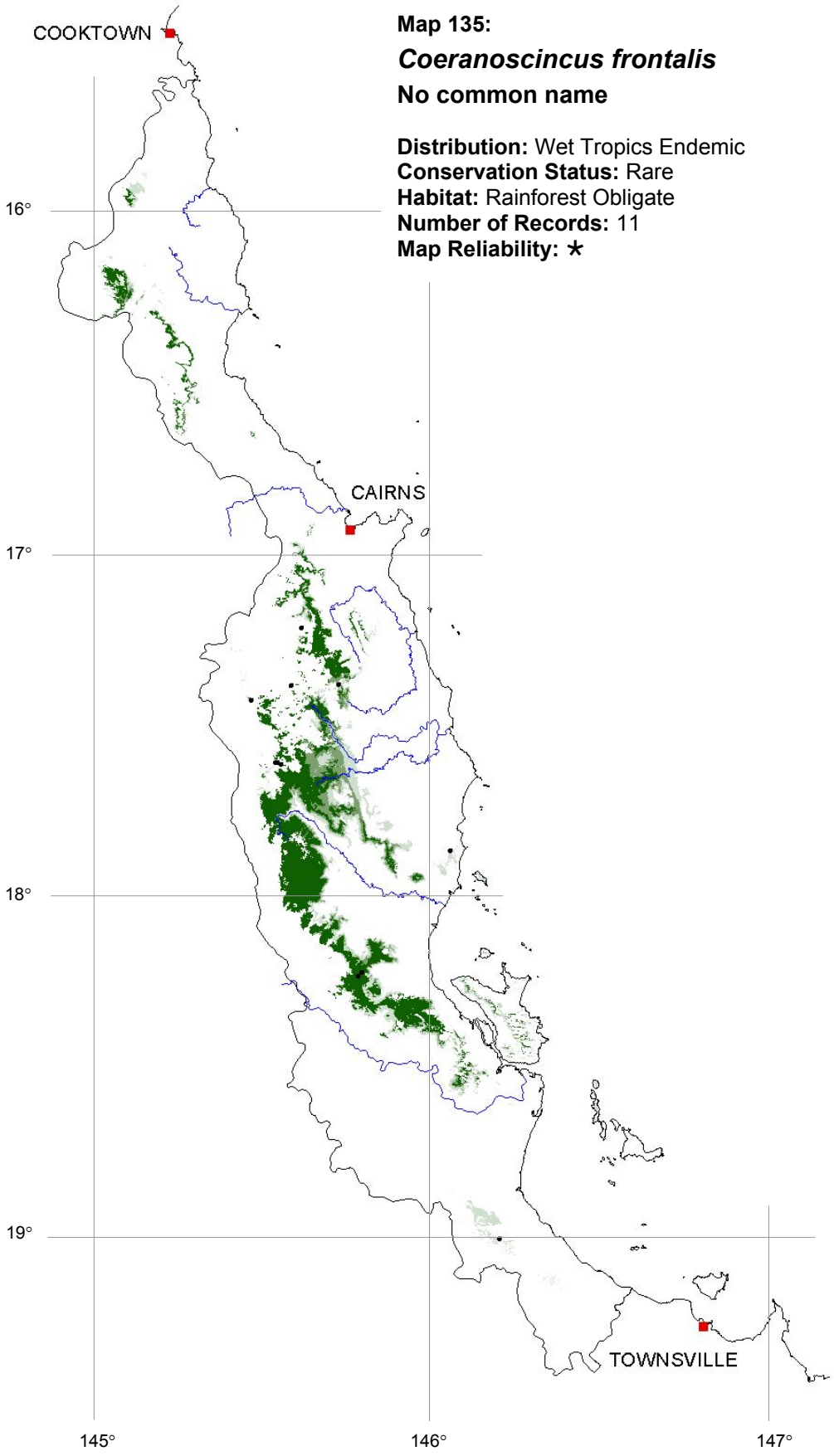
Map 134:

Carlia rubrigularis

Northern Red-throated Skink

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 247
Map Reliability: ★★★





Map 135:

Coeranoscincus frontalis

No common name

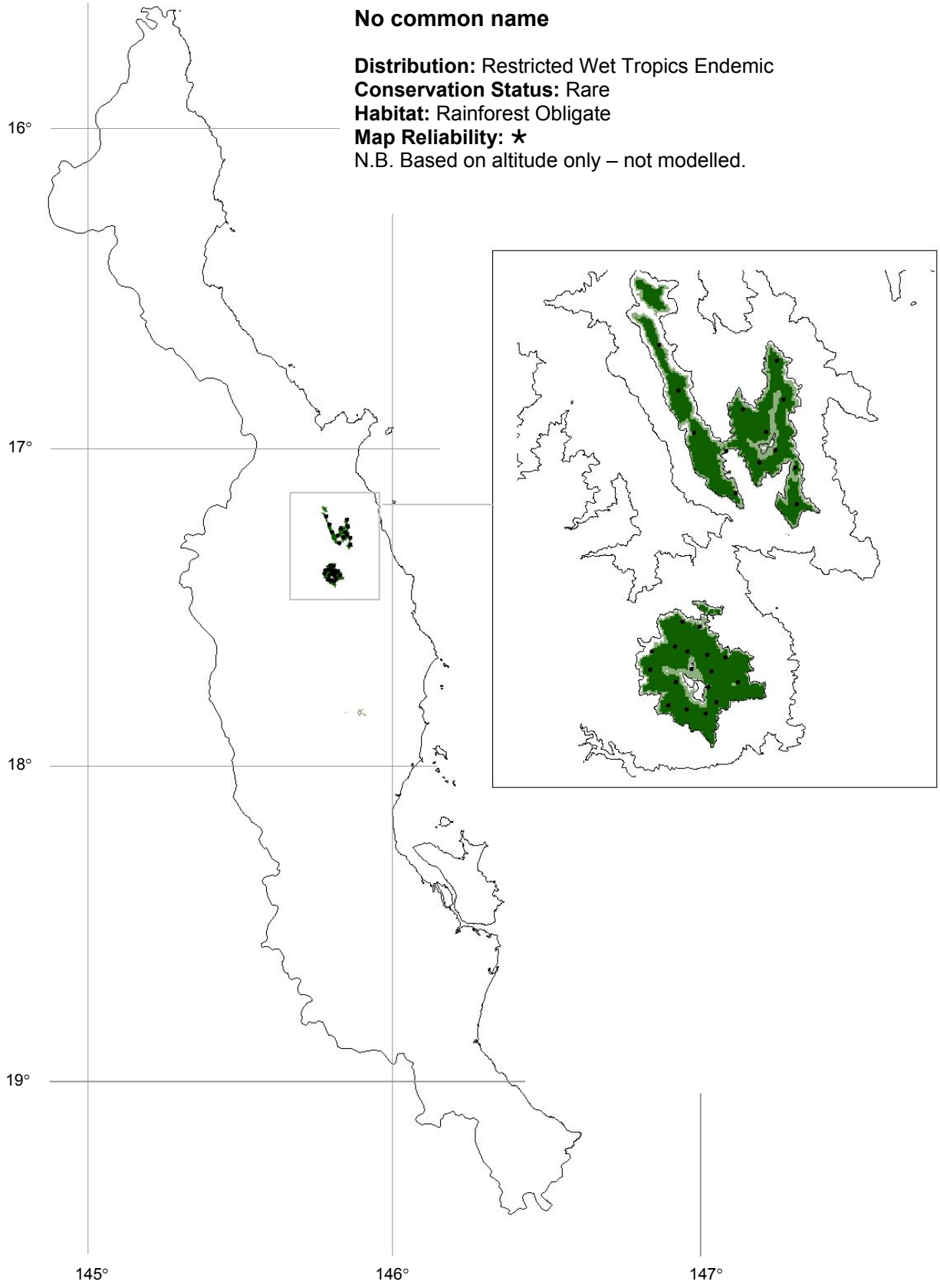
Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 11
Map Reliability: ★

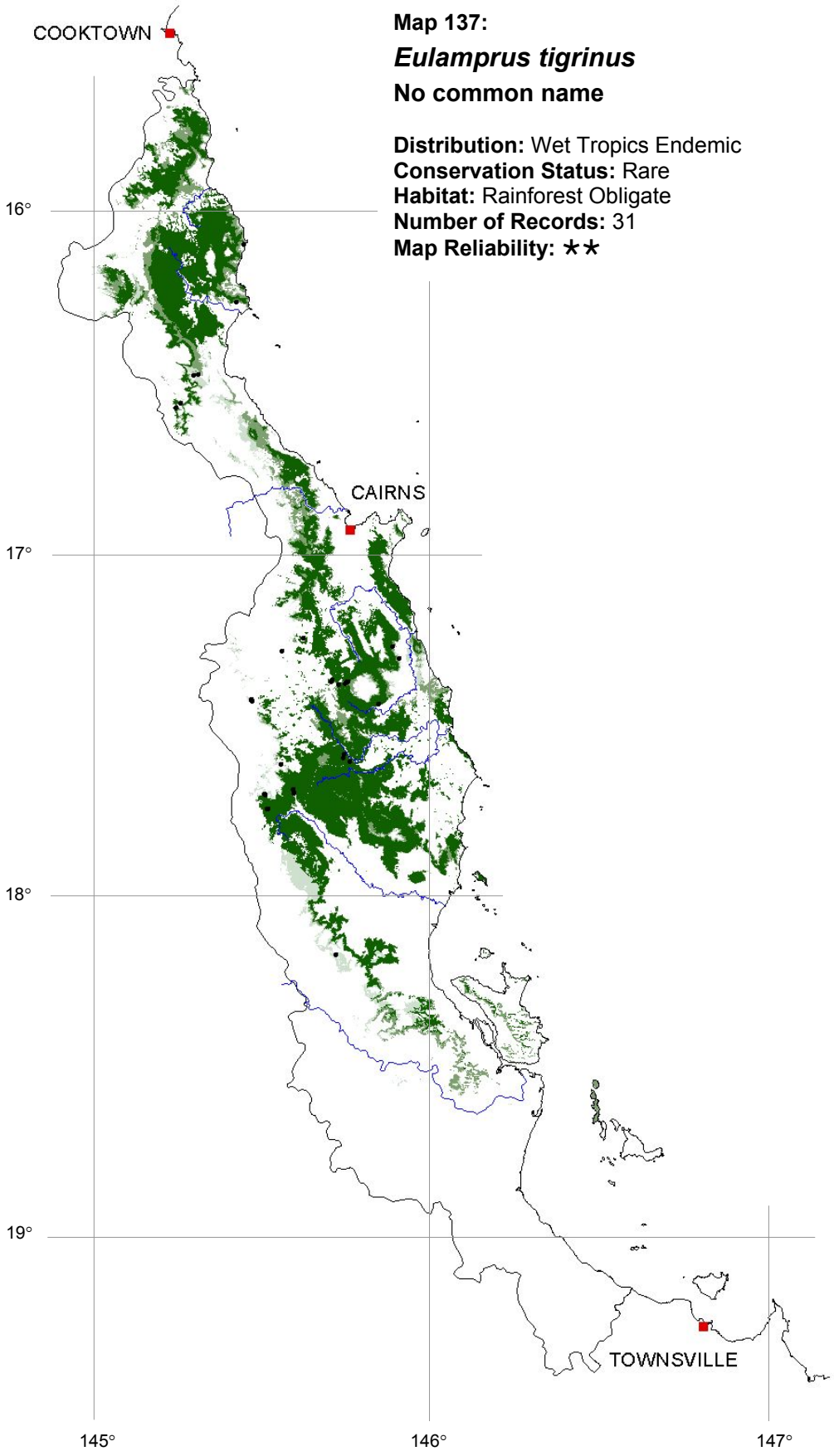
Map 136:

Eulamprus frerei

No common name

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Map Reliability: ✶
N.B. Based on altitude only – not modelled.



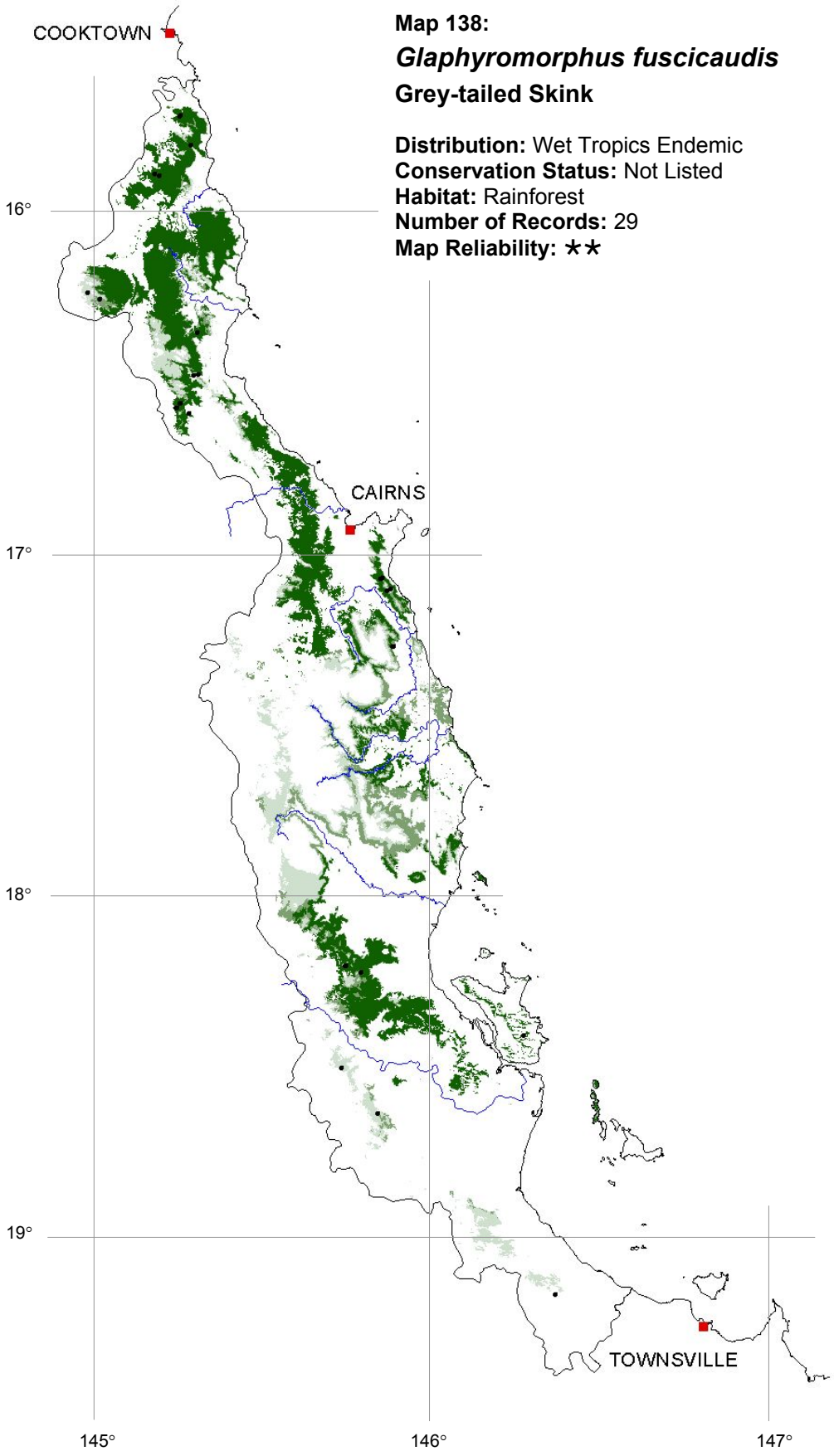


Map 137:

Eulamprus tigrinus

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 31
Map Reliability: ★★

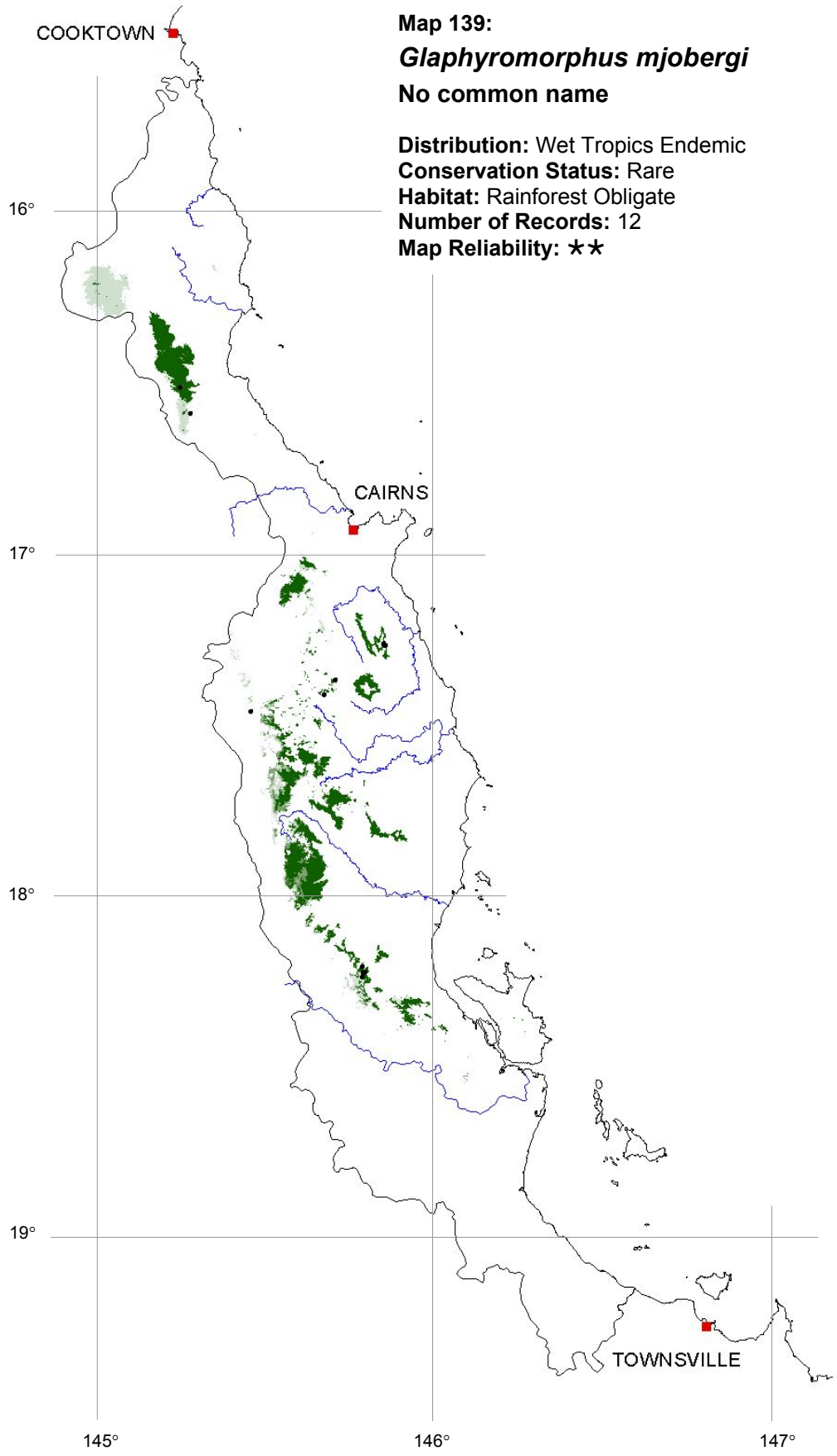


Map 138:

Glaphyromorphus fuscicaudis

Grey-tailed Skink

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 29
Map Reliability: ★★

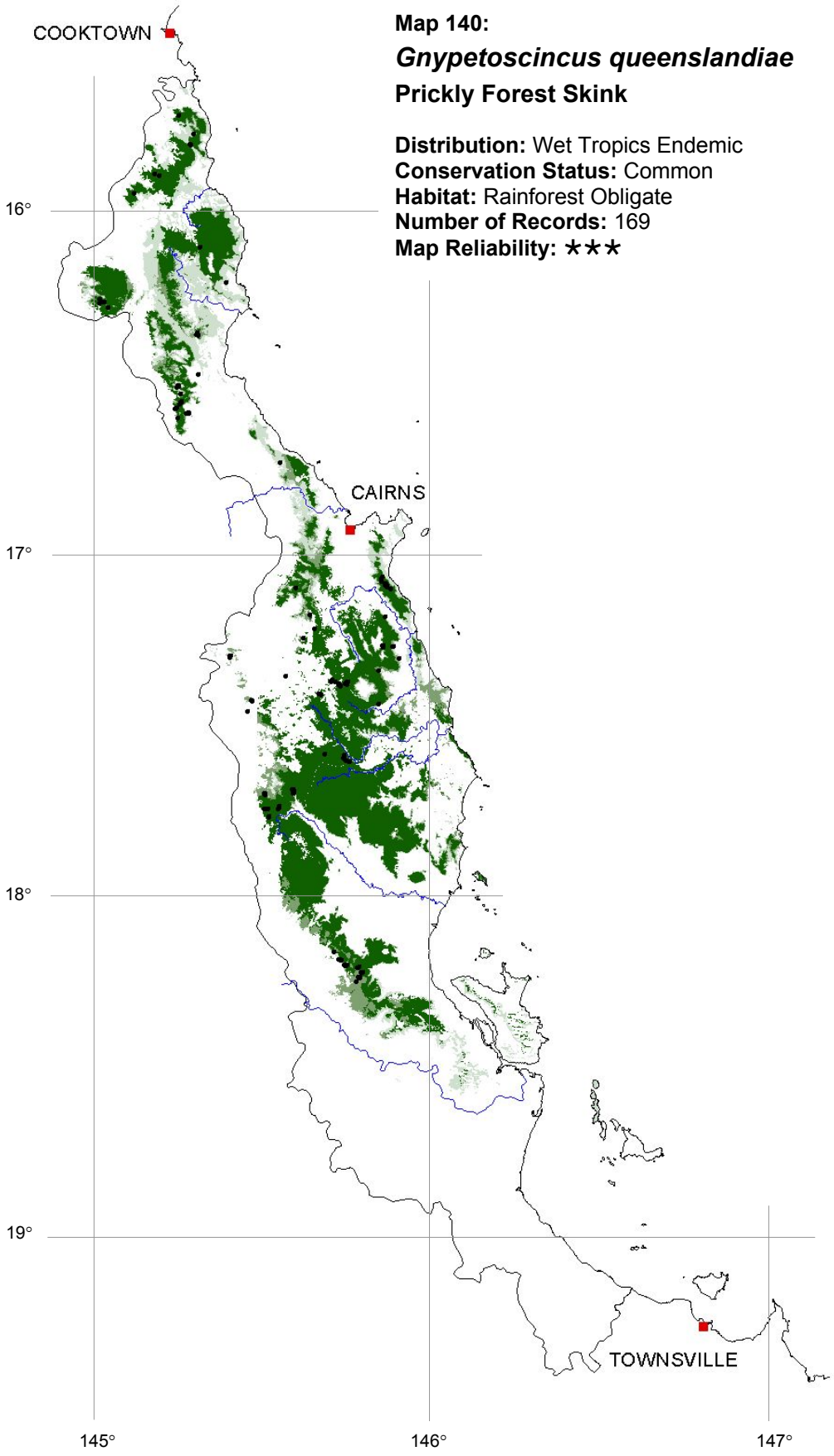


Map 139:

Glaphyromorphus mjobergi

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 12
Map Reliability: ★★

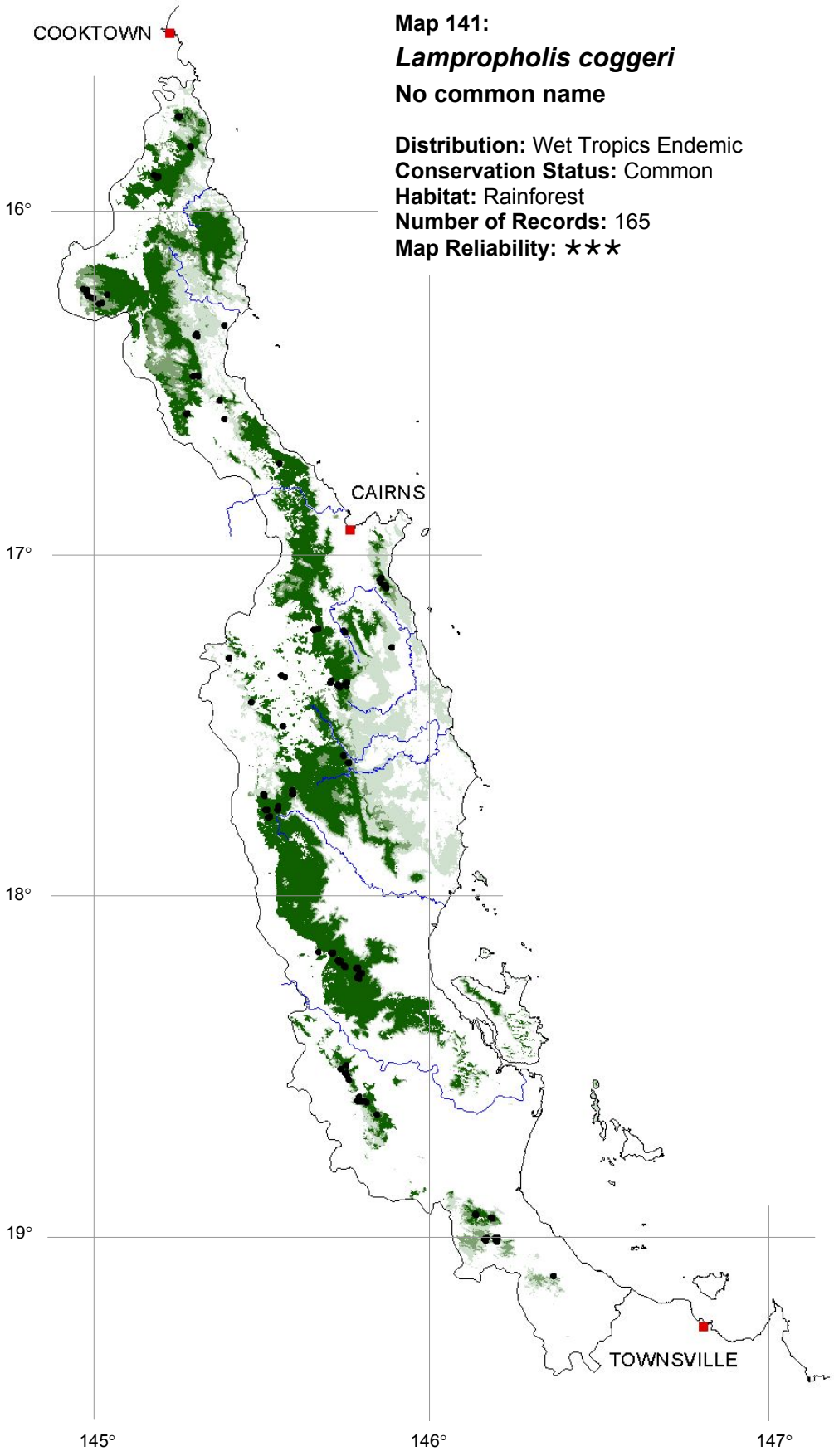


Map 140:

Gnypetoscincus queenslandiae

Prickly Forest Skink

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest Obligate
Number of Records: 169
Map Reliability: ★★★

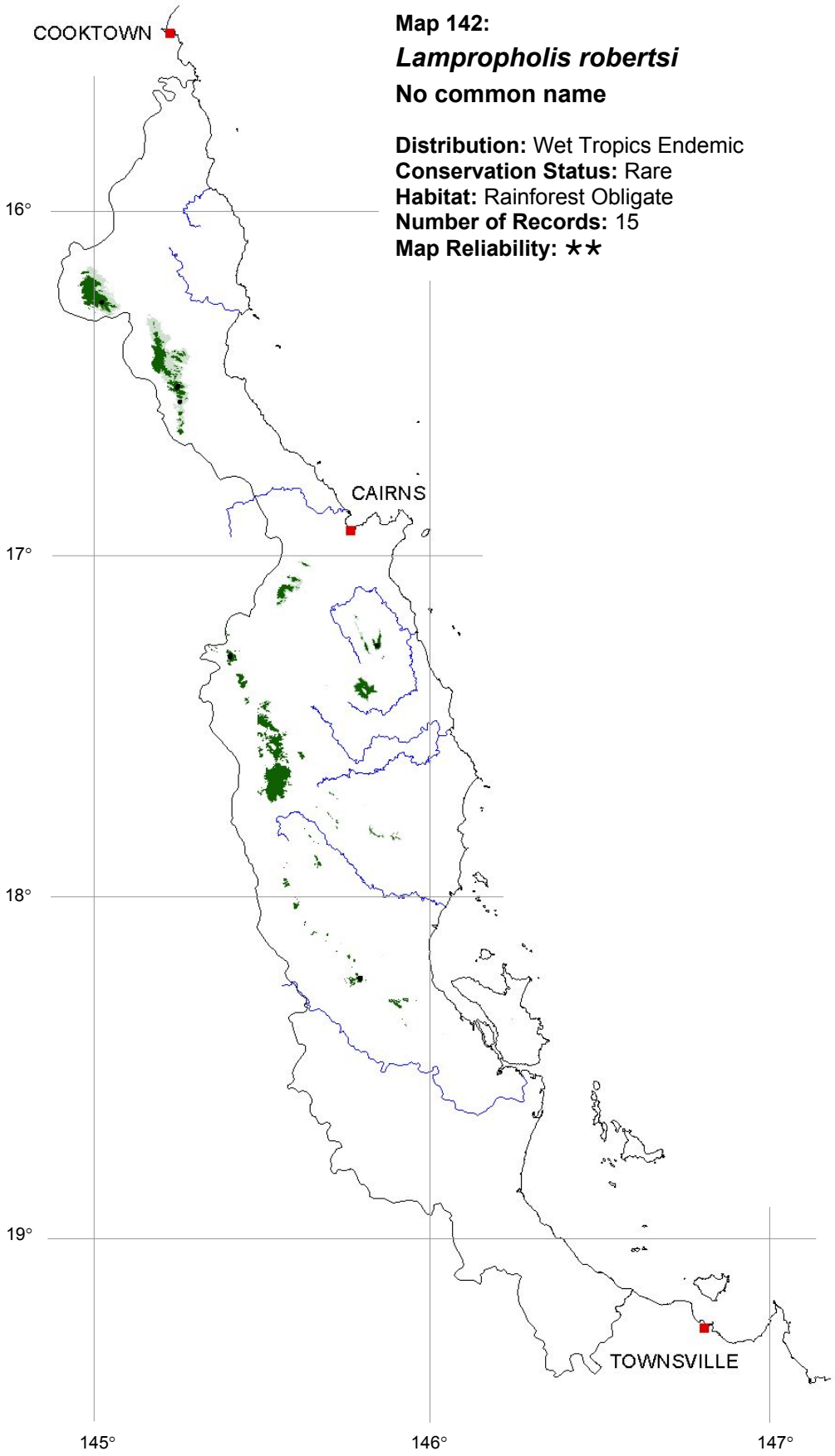


Map 141:

Lampropholis coggeri

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 165
Map Reliability: ★★★

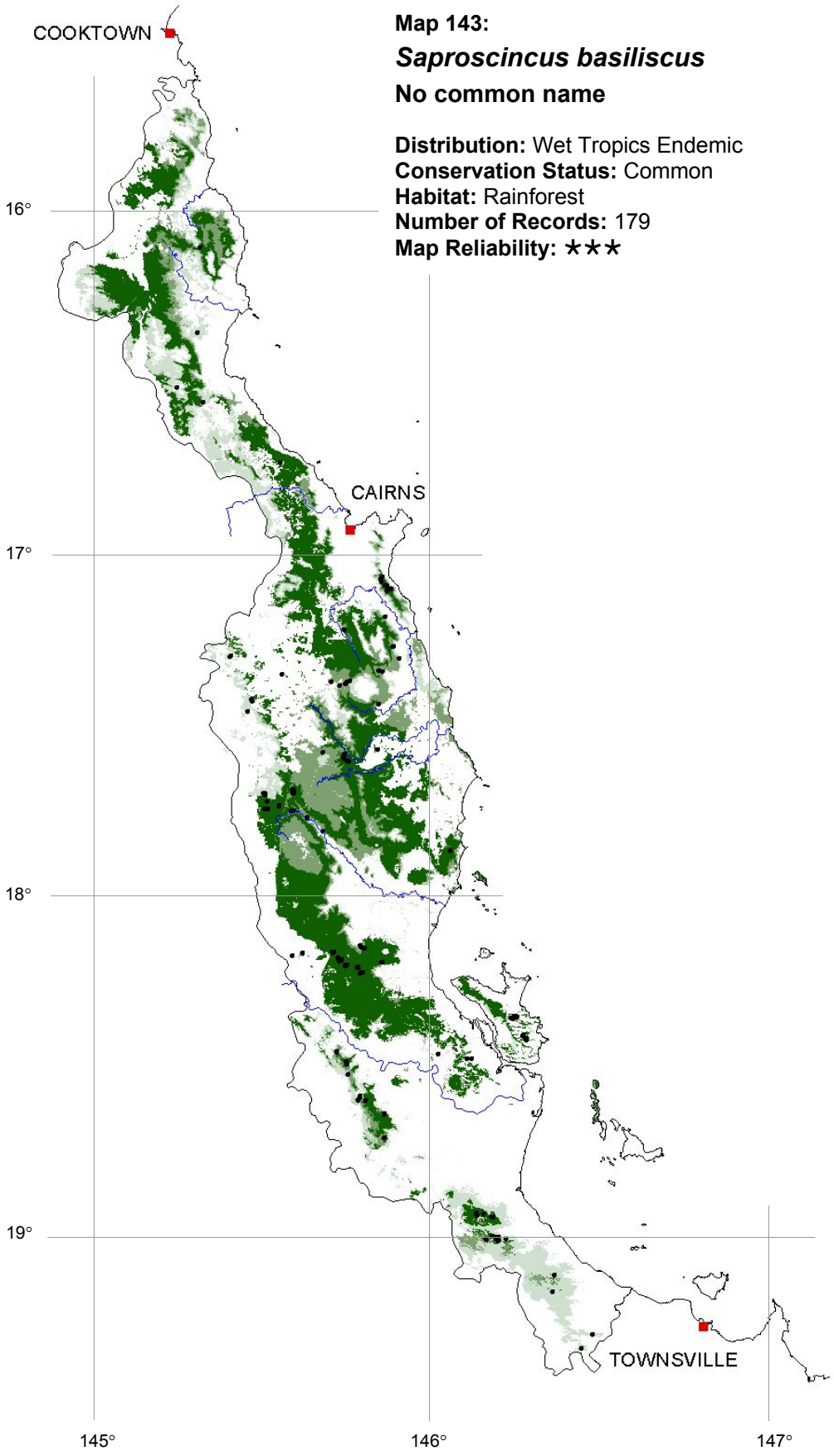


Map 142:

Lampropholis robertsi

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 15
Map Reliability: ★★

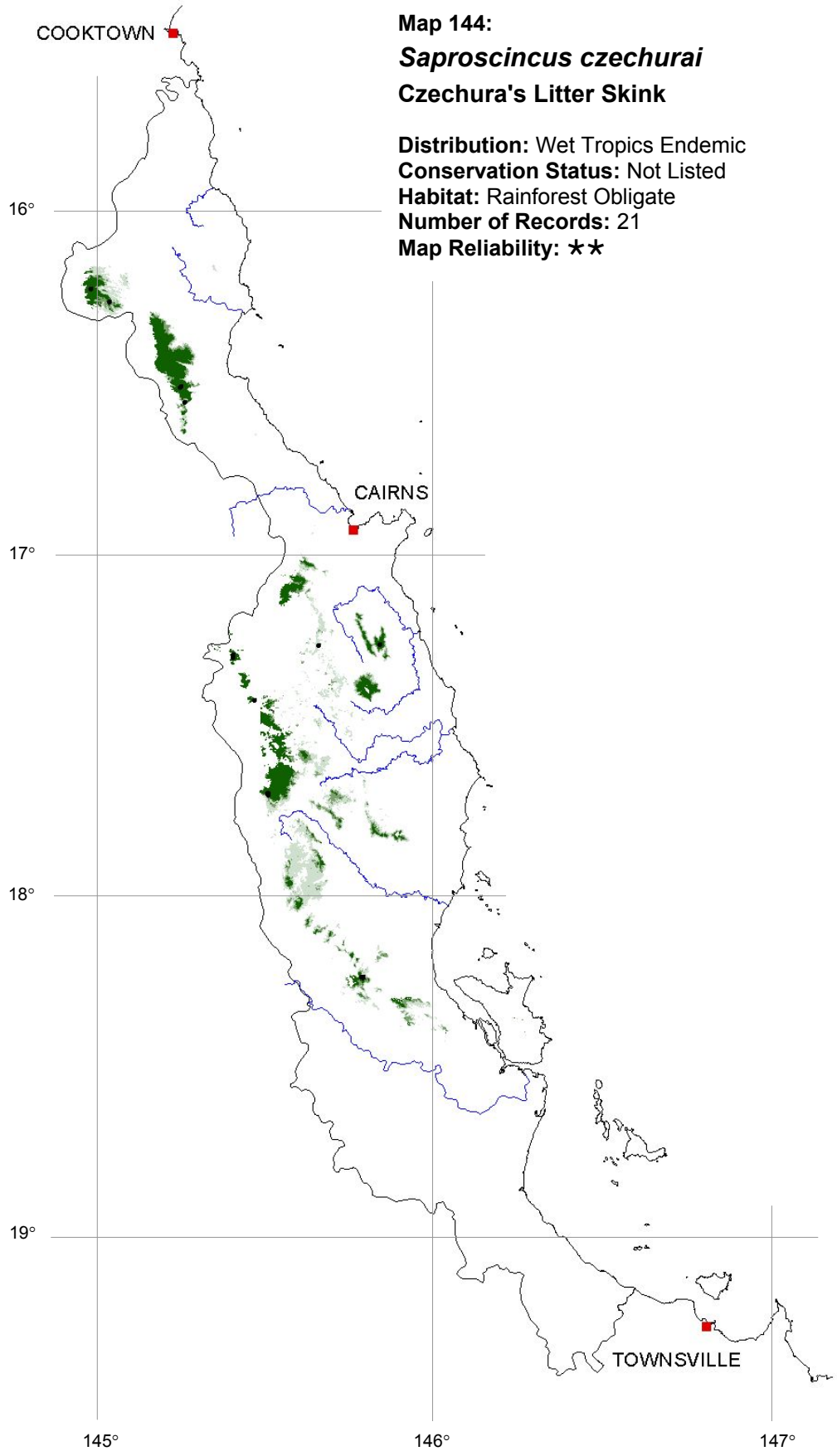


Map 143:

Saproscincus basiliscus

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 179
Map Reliability: ★★★

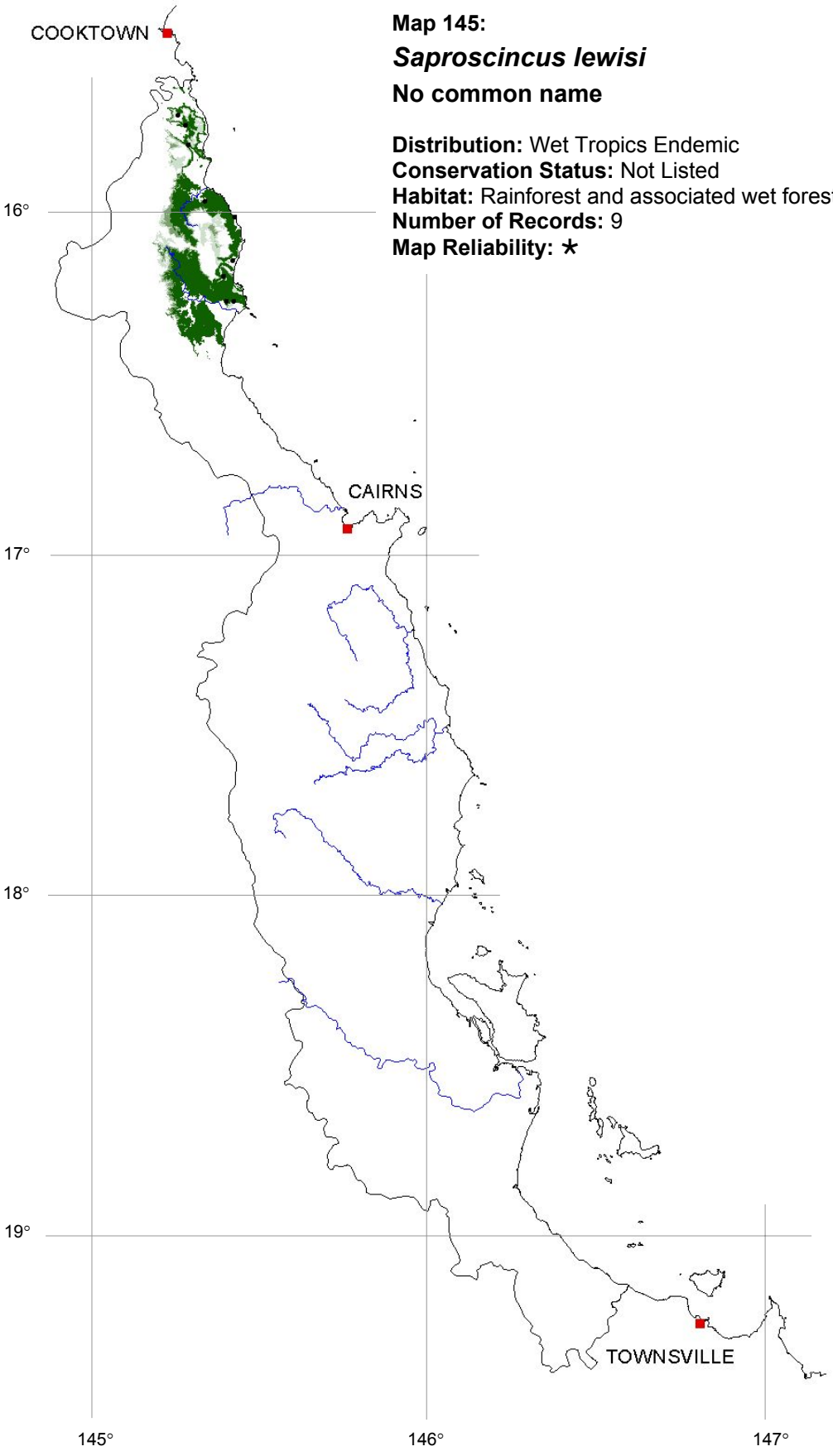


Map 144:

Saproscincus czechurai

Czechura's Litter Skink

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 21
Map Reliability: ★★

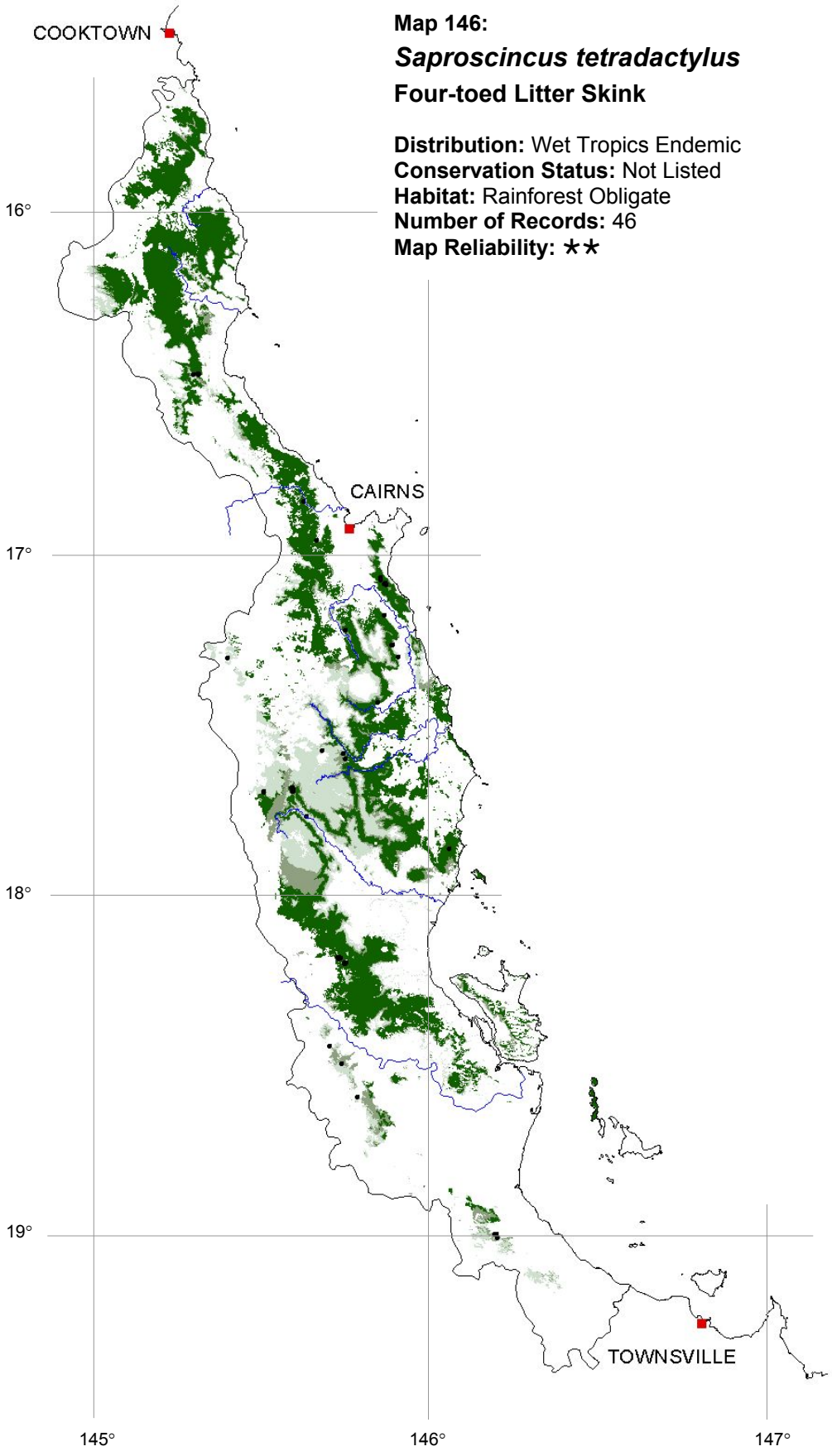


Map 145:

Saproscincus lewisi

No common name

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest and associated wet forests
Number of Records: 9
Map Reliability: *



Map 146:

Saproscincus tetradactylus

Four-toed Litter Skink

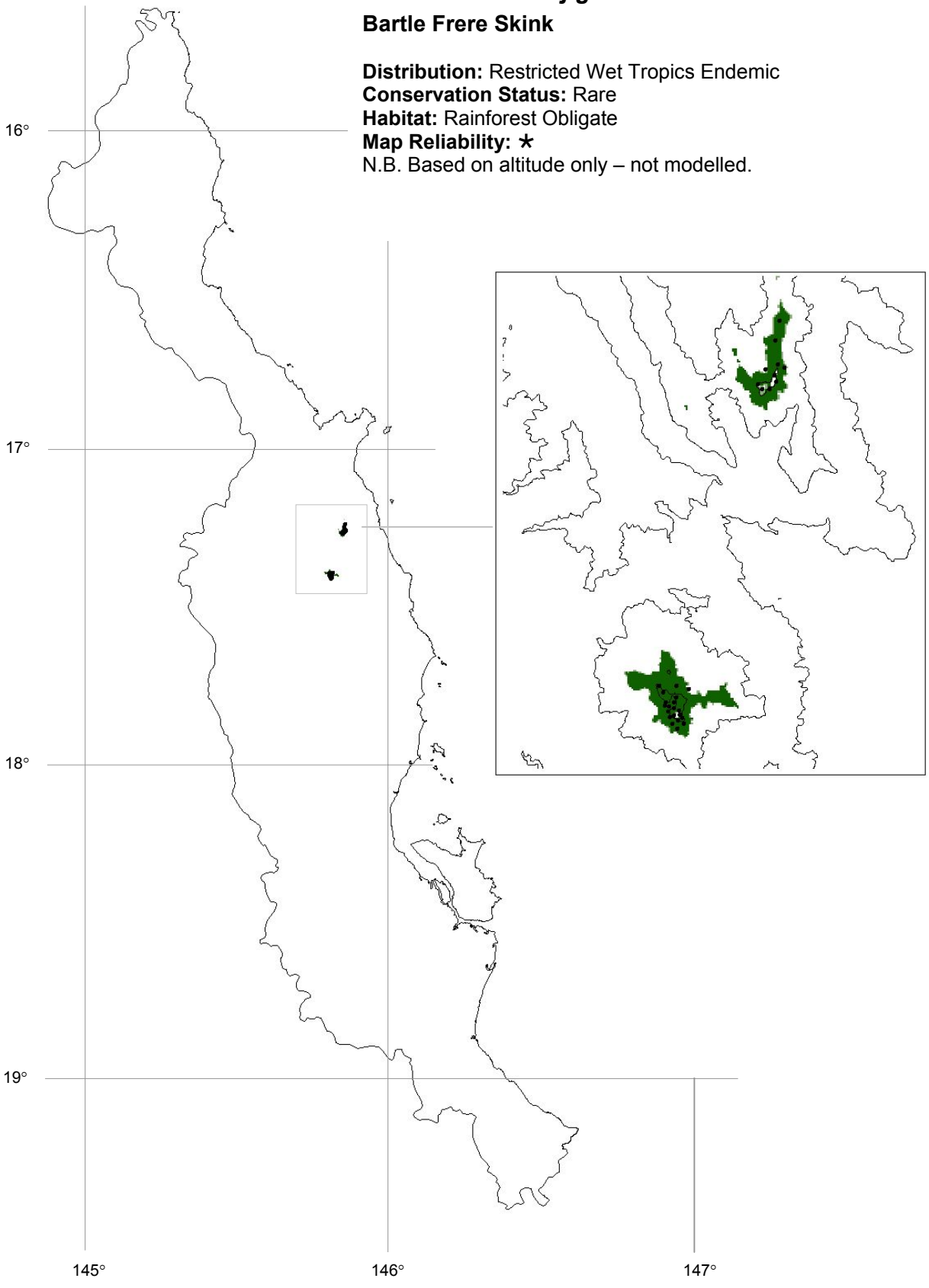
Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 46
Map Reliability: ★★

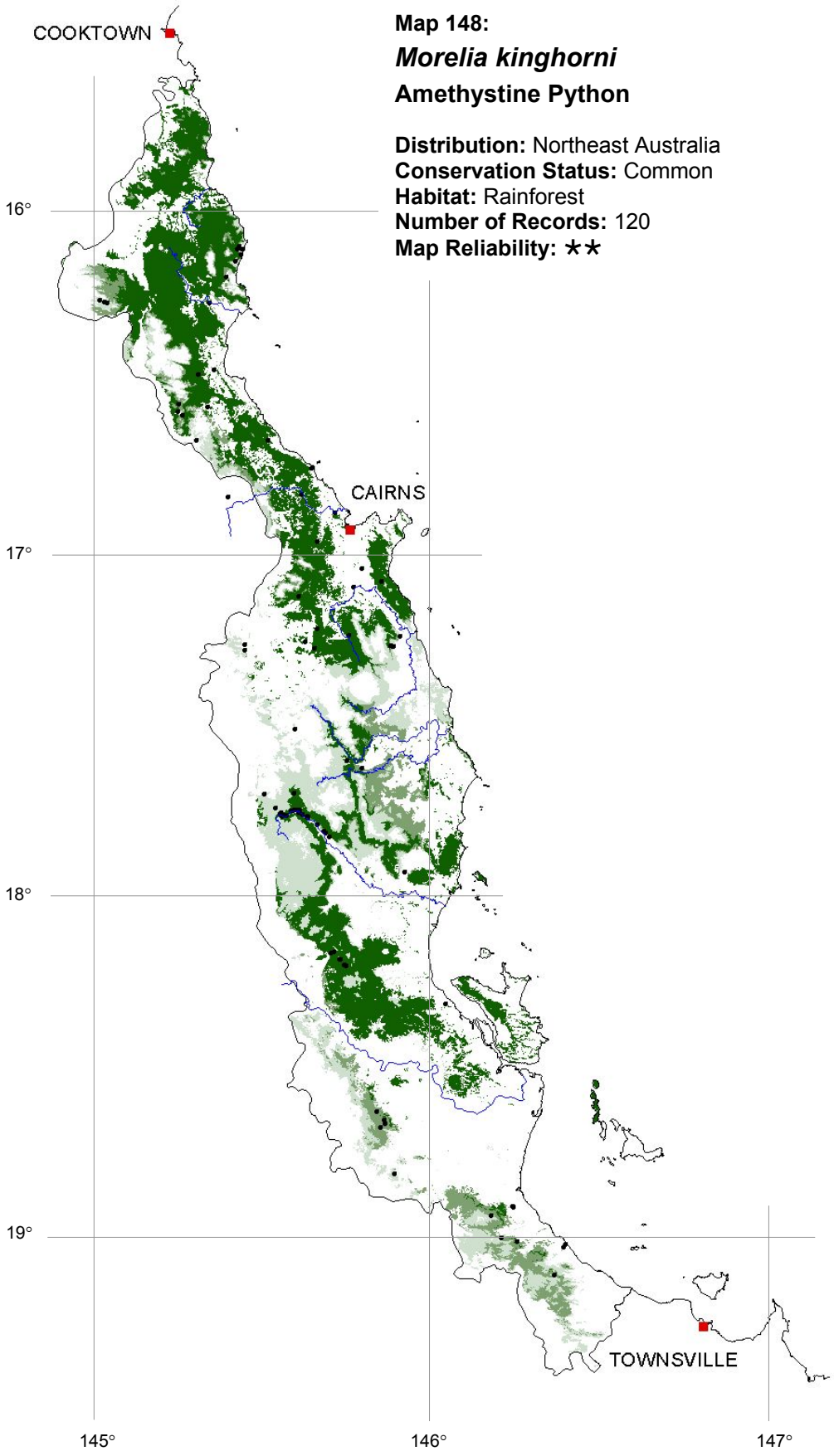
Map 147:

Techmarscincus jigurru

Bartle Frere Skink

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Map Reliability: ★
N.B. Based on altitude only – not modelled.



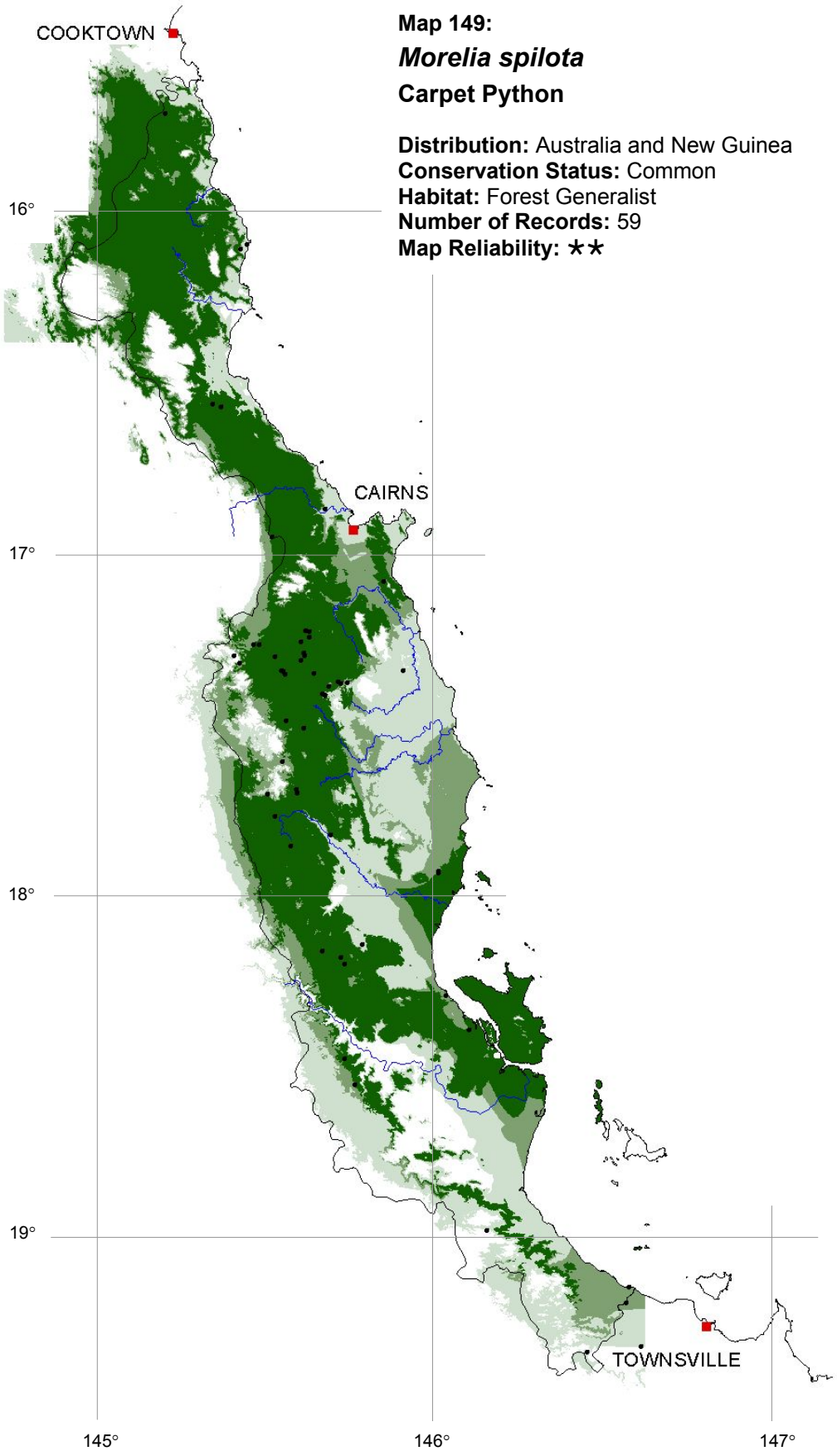


Map 148:

Morelia kinghorni

Amethystine Python

Distribution: Northeast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 120
Map Reliability: ★★

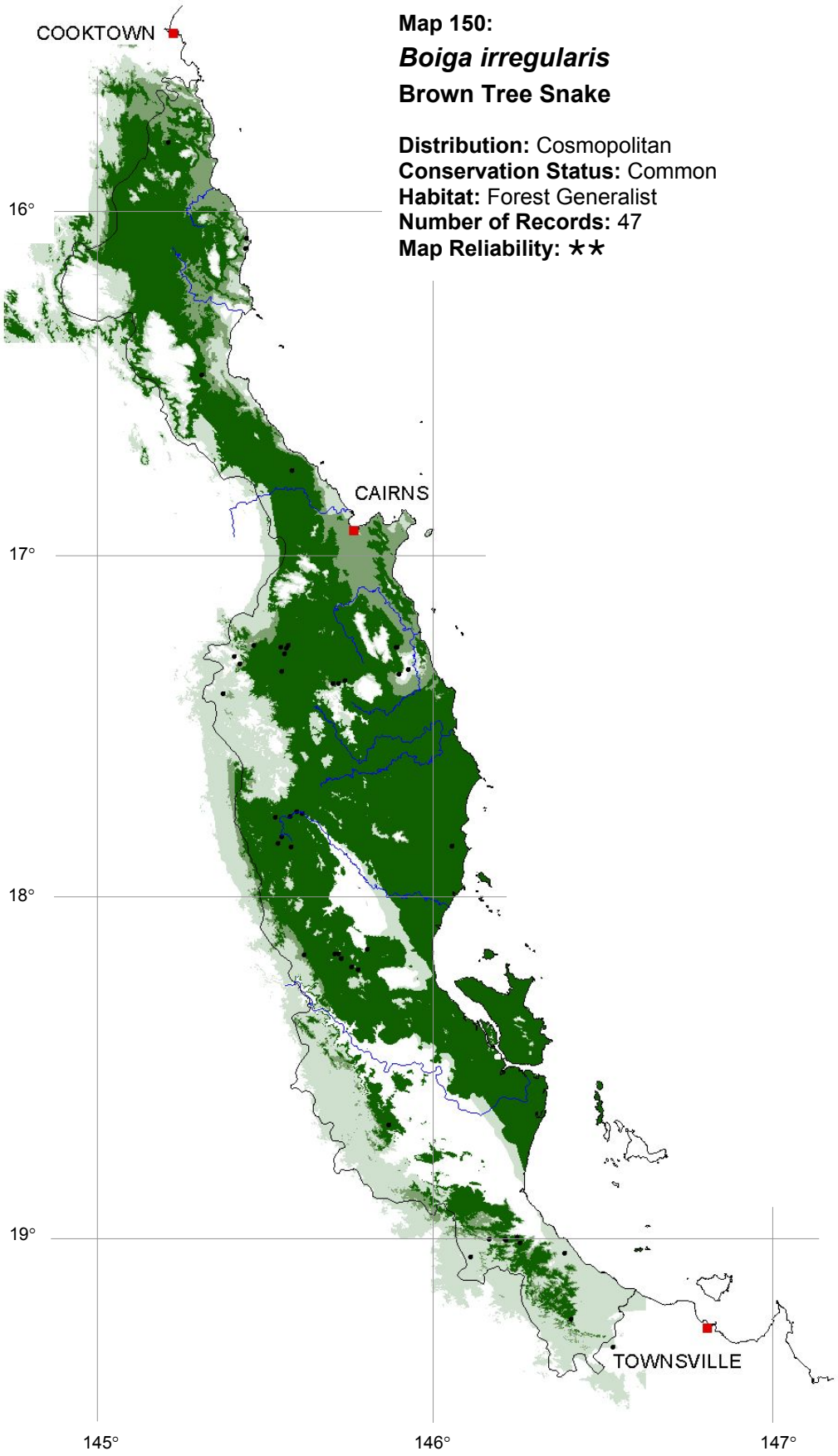


Map 149:

Morelia spilota

Carpet Python

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 59
Map Reliability: ★★

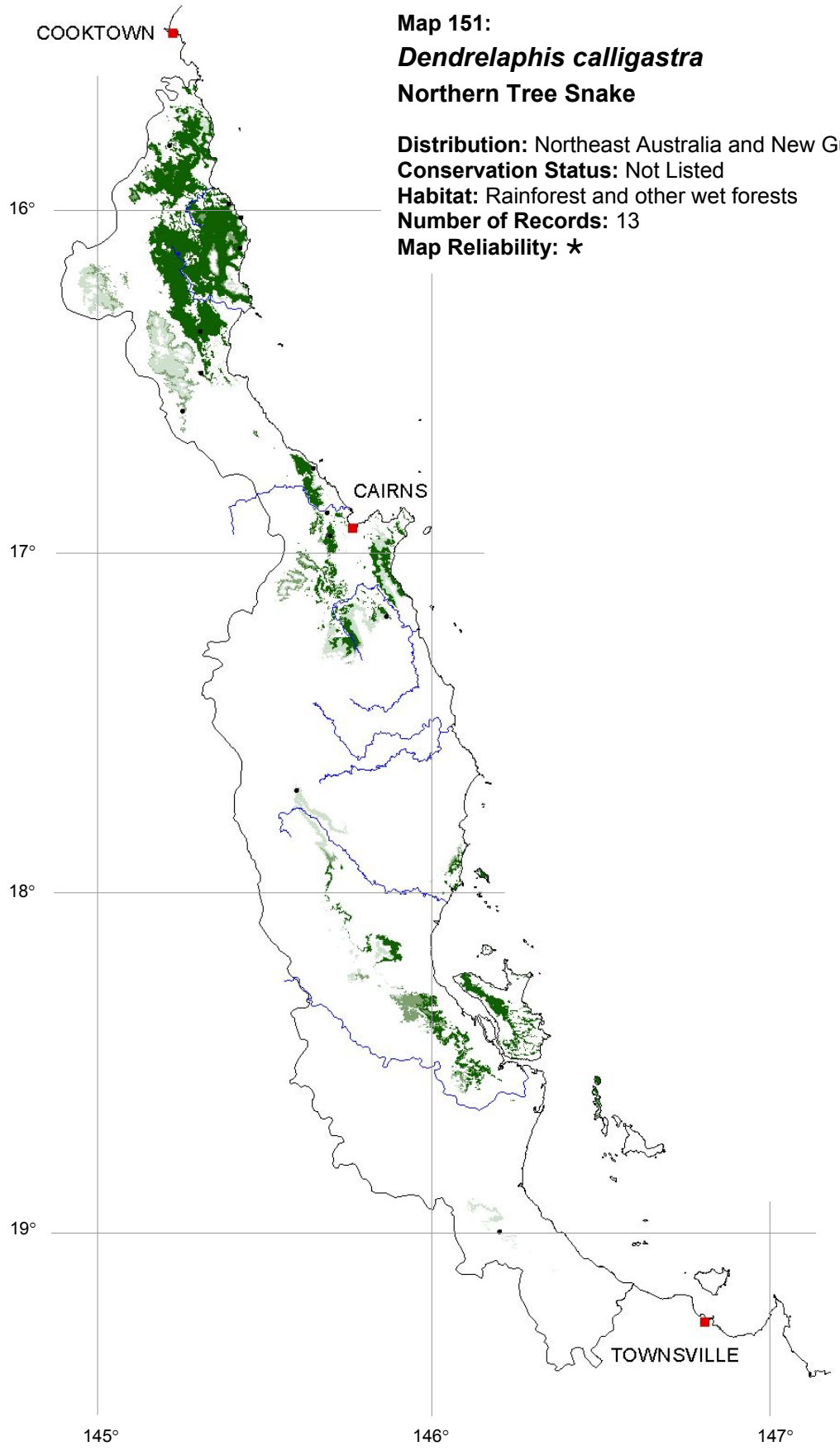


Map 150:

Boiga irregularis

Brown Tree Snake

Distribution: Cosmopolitan
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 47
Map Reliability: ★★

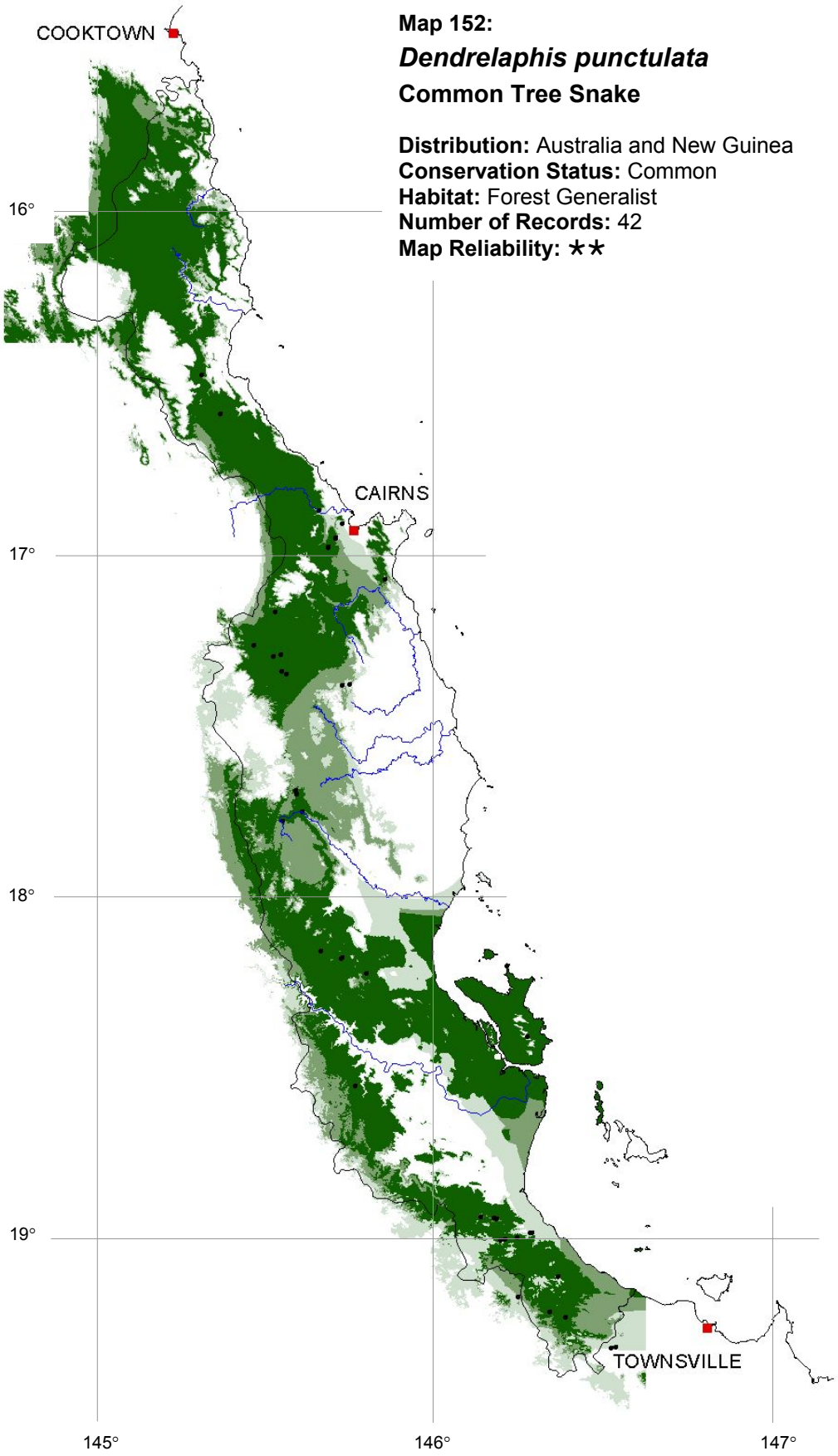


Map 151:

Dendrelaphis calligastra

Northern Tree Snake

Distribution: Northeast Australia and New Guinea
Conservation Status: Not Listed
Habitat: Rainforest and other wet forests
Number of Records: 13
Map Reliability: ★

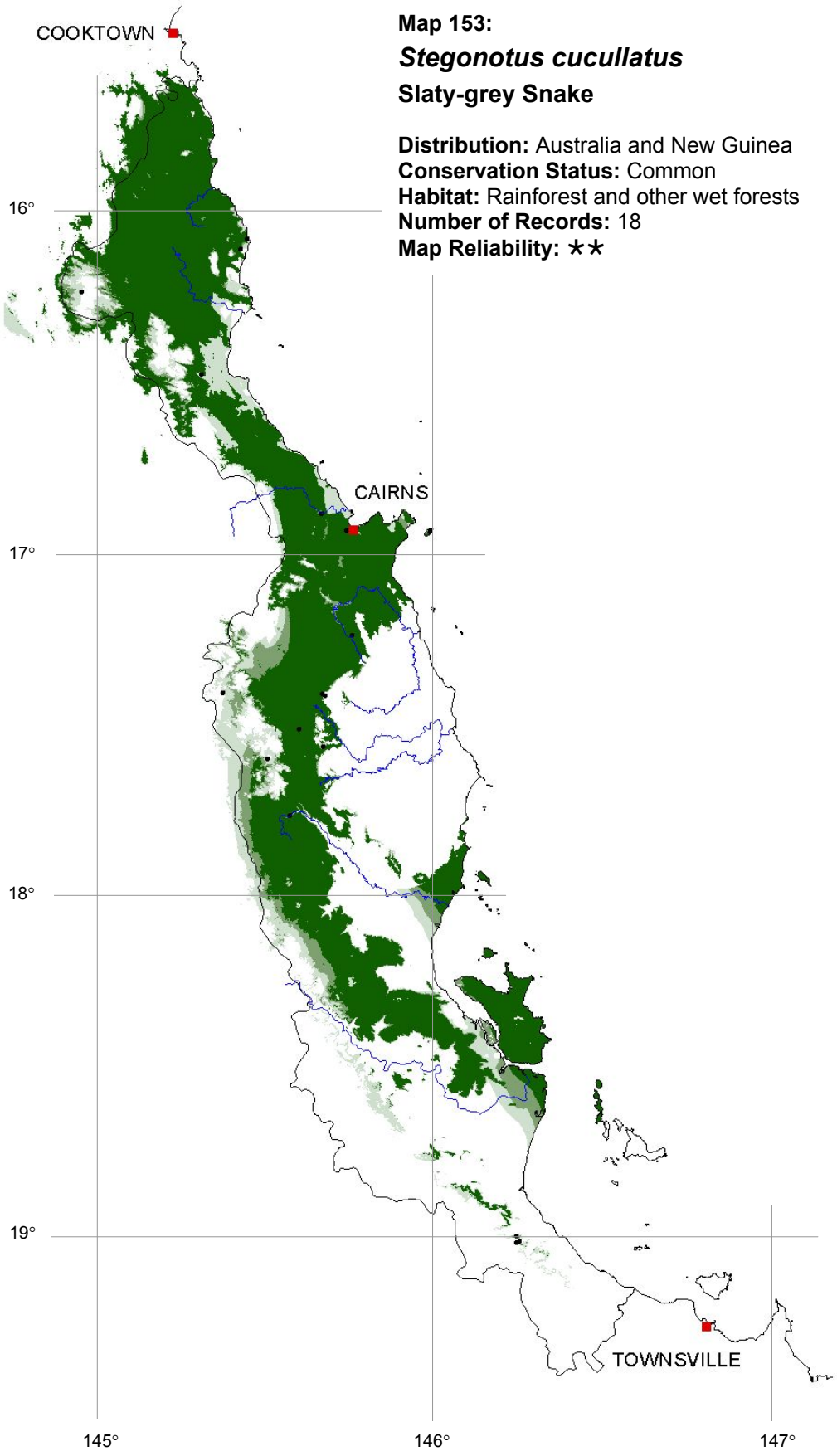


Map 152:

Dendrelaphis punctulata

Common Tree Snake

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 42
Map Reliability: ★★

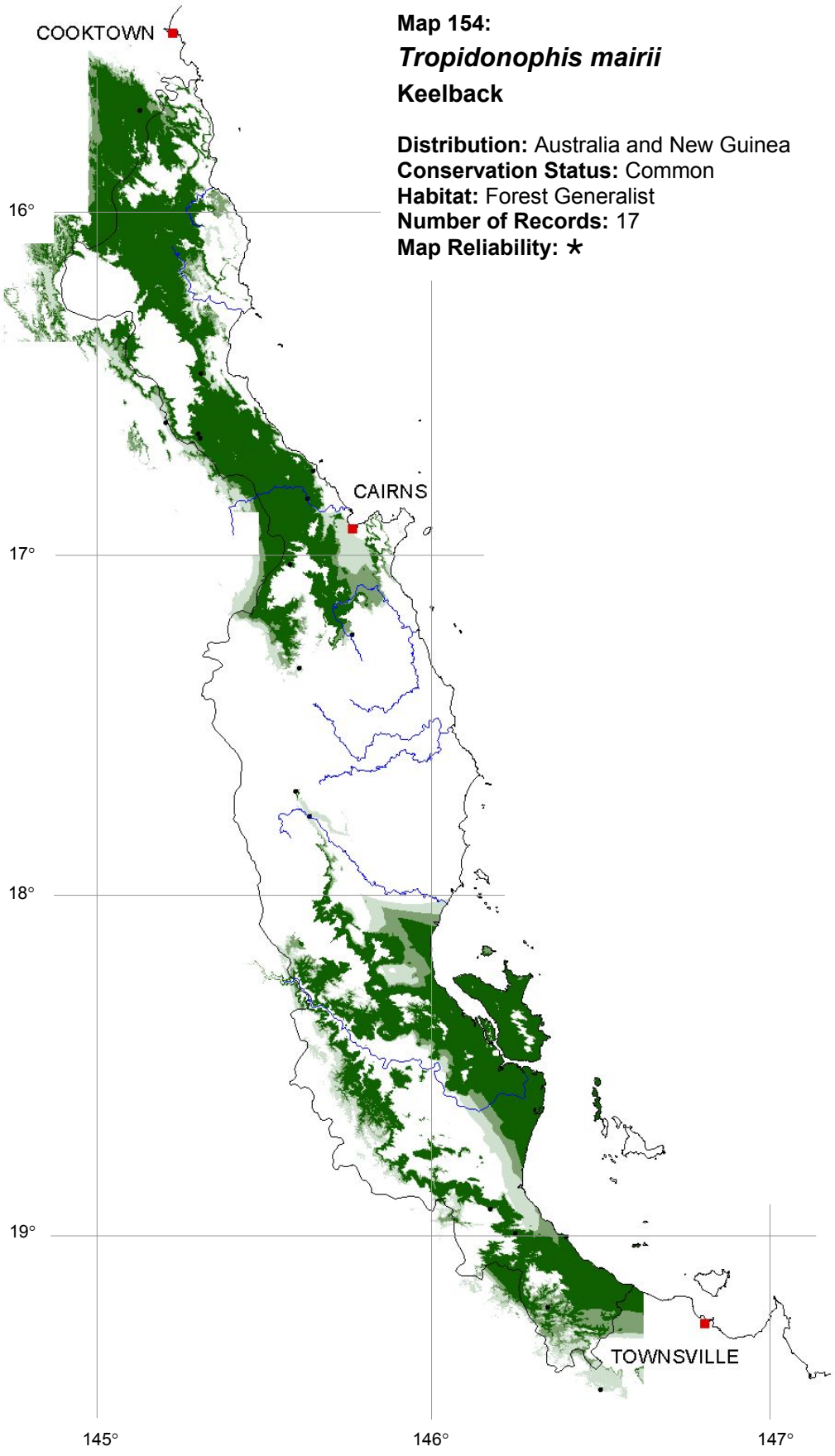


Map 153:

Stegonotus cucullatus

Slaty-grey Snake

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 18
Map Reliability: ★★

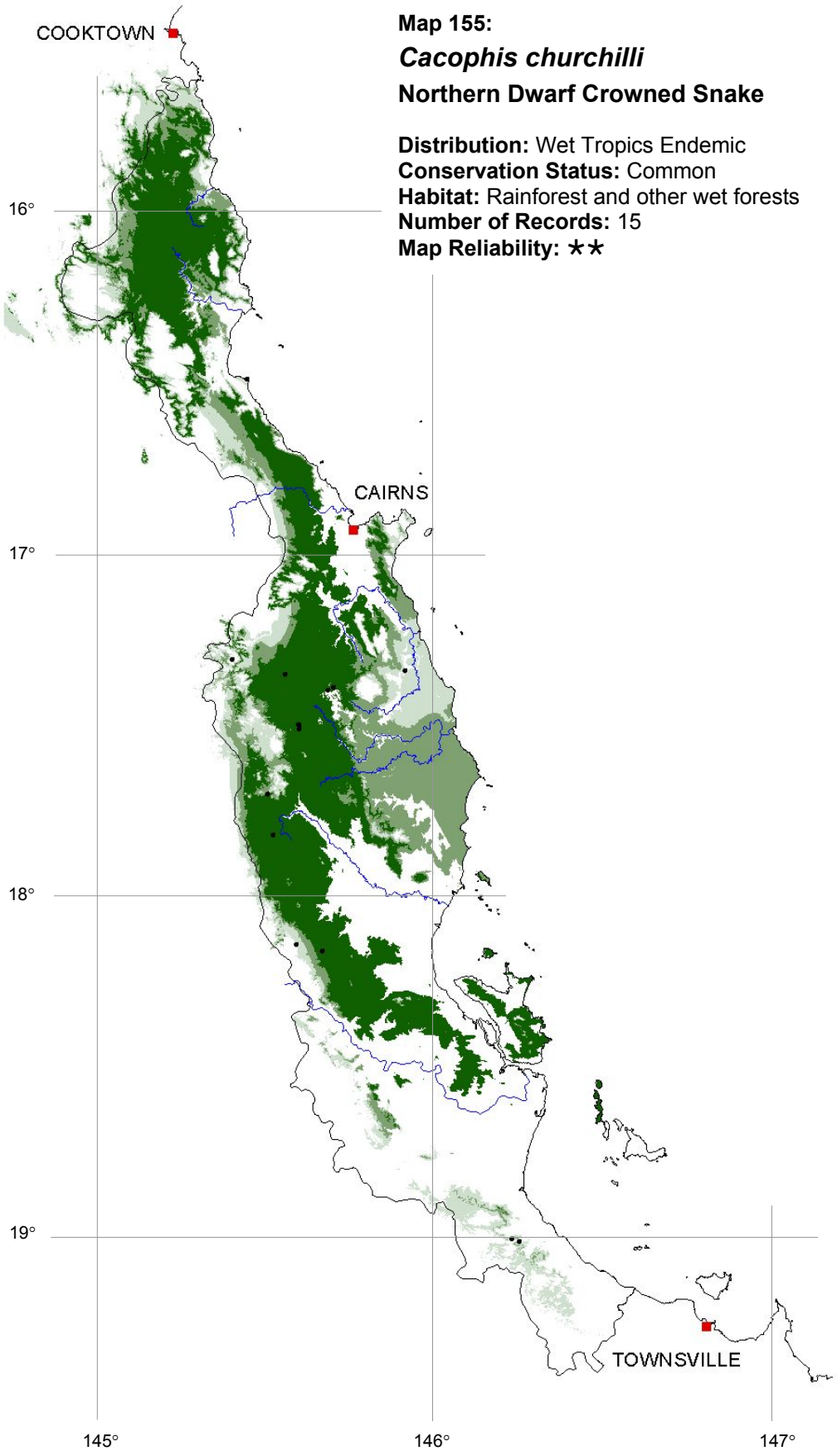


Map 154:

Tropidonophis mairii

Keelback

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 17
Map Reliability: ★

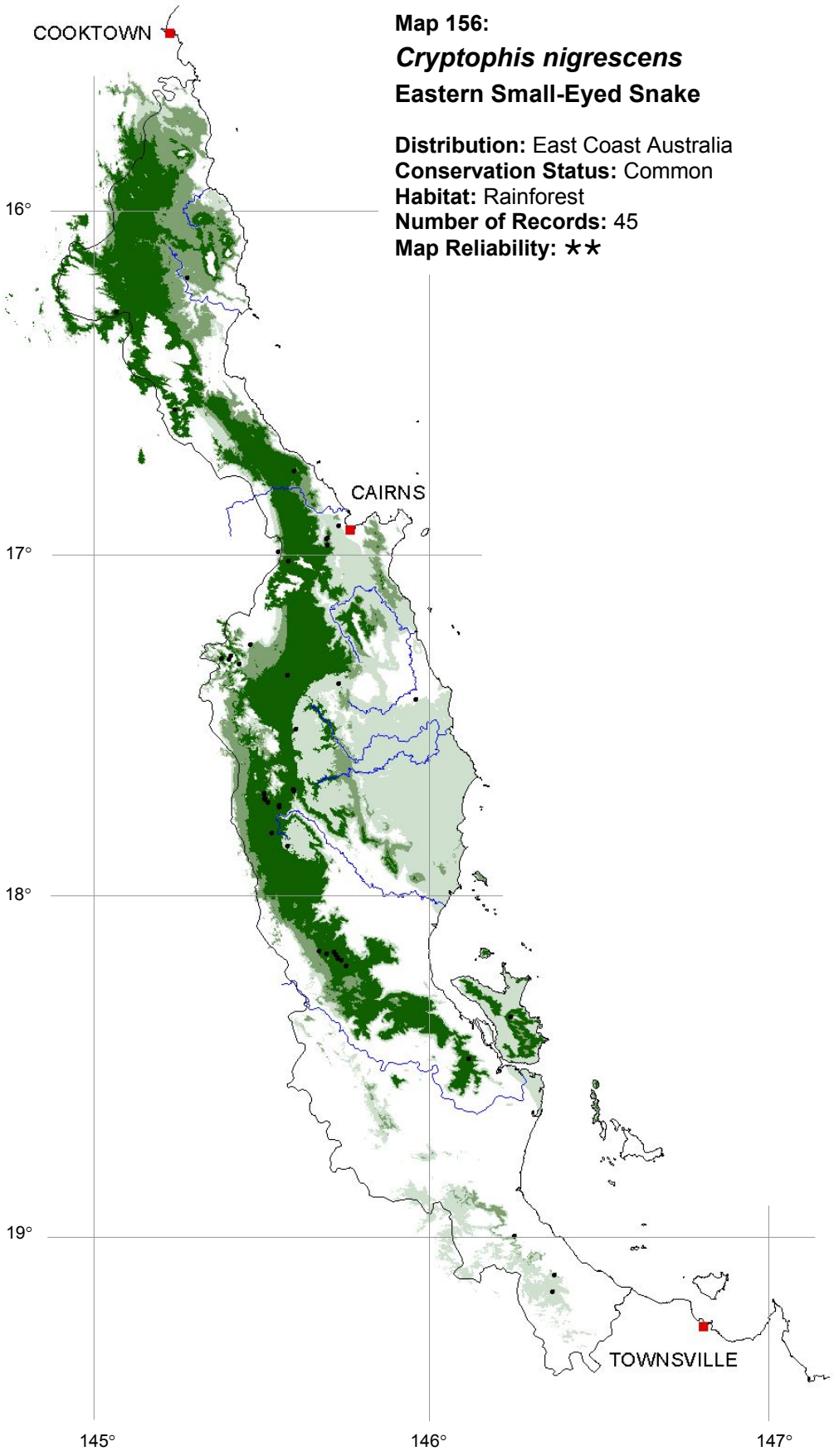


Map 155:

Cacophis churchilli

Northern Dwarf Crowned Snake

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 15
Map Reliability: ★★

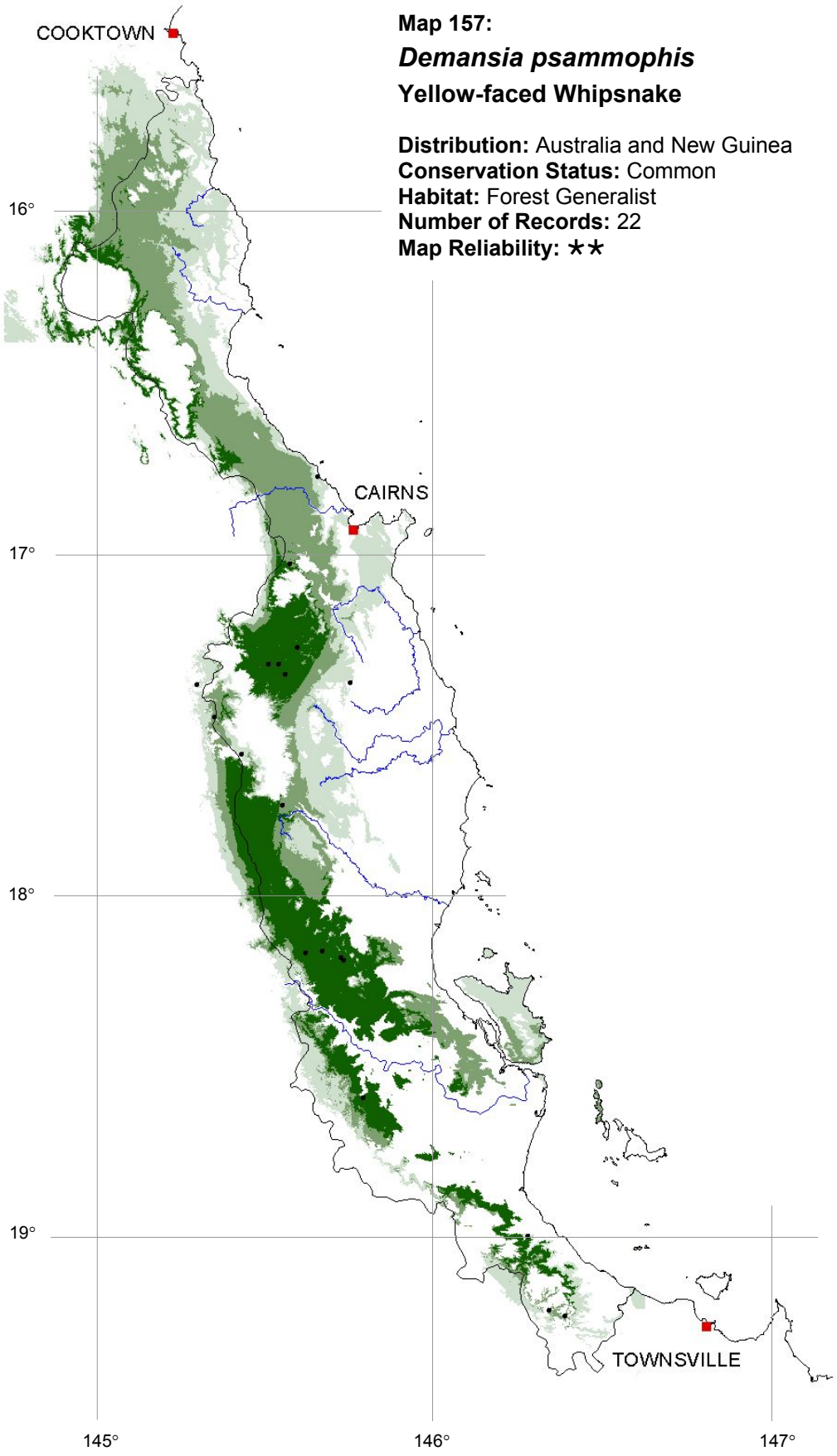


Map 156:

Cryptophis nigrescens

Eastern Small-Eyed Snake

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Rainforest
Number of Records: 45
Map Reliability: ★★

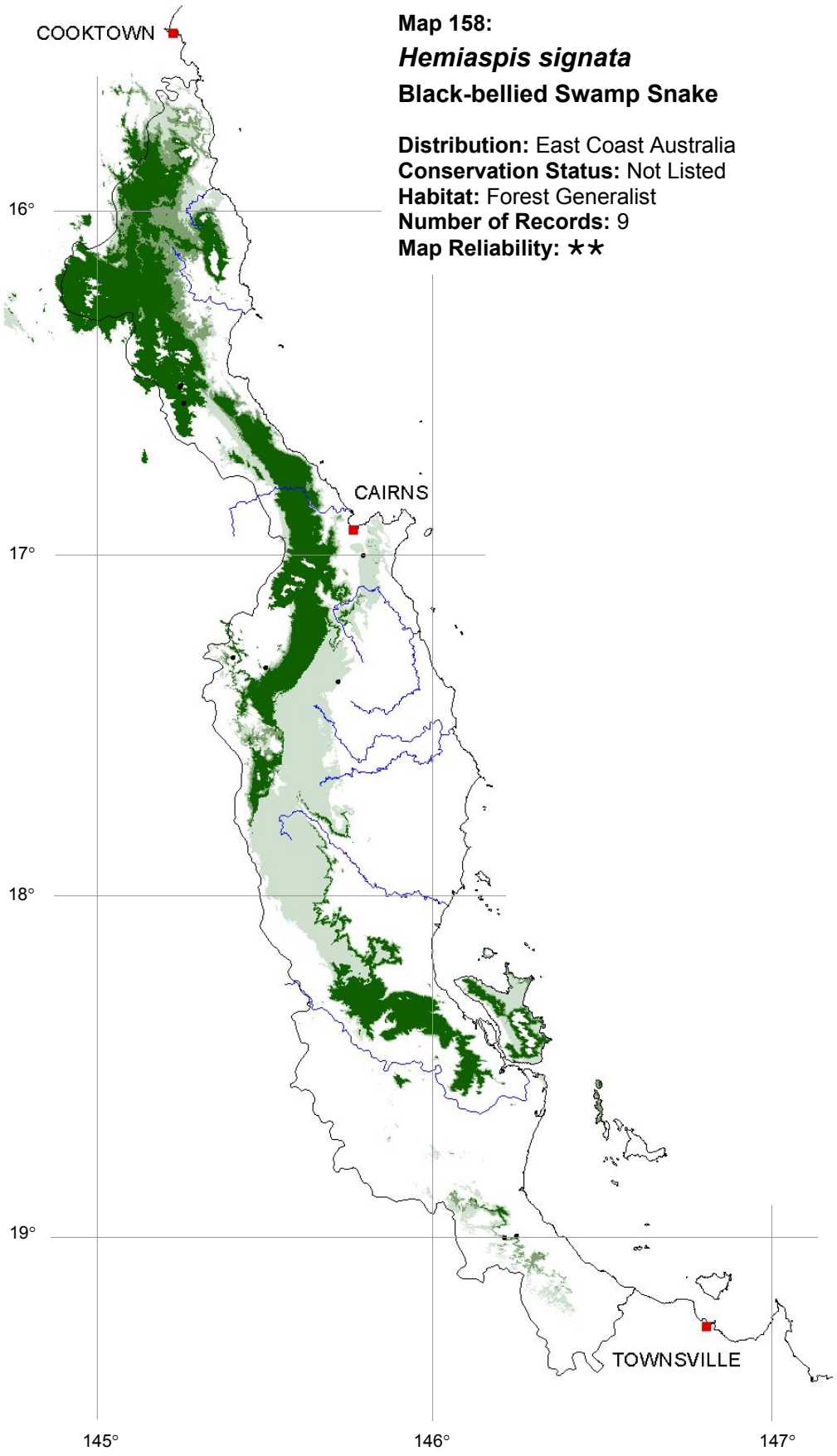


Map 157:

Demansia psammophis

Yellow-faced Whipsnake

Distribution: Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 22
Map Reliability: ★★

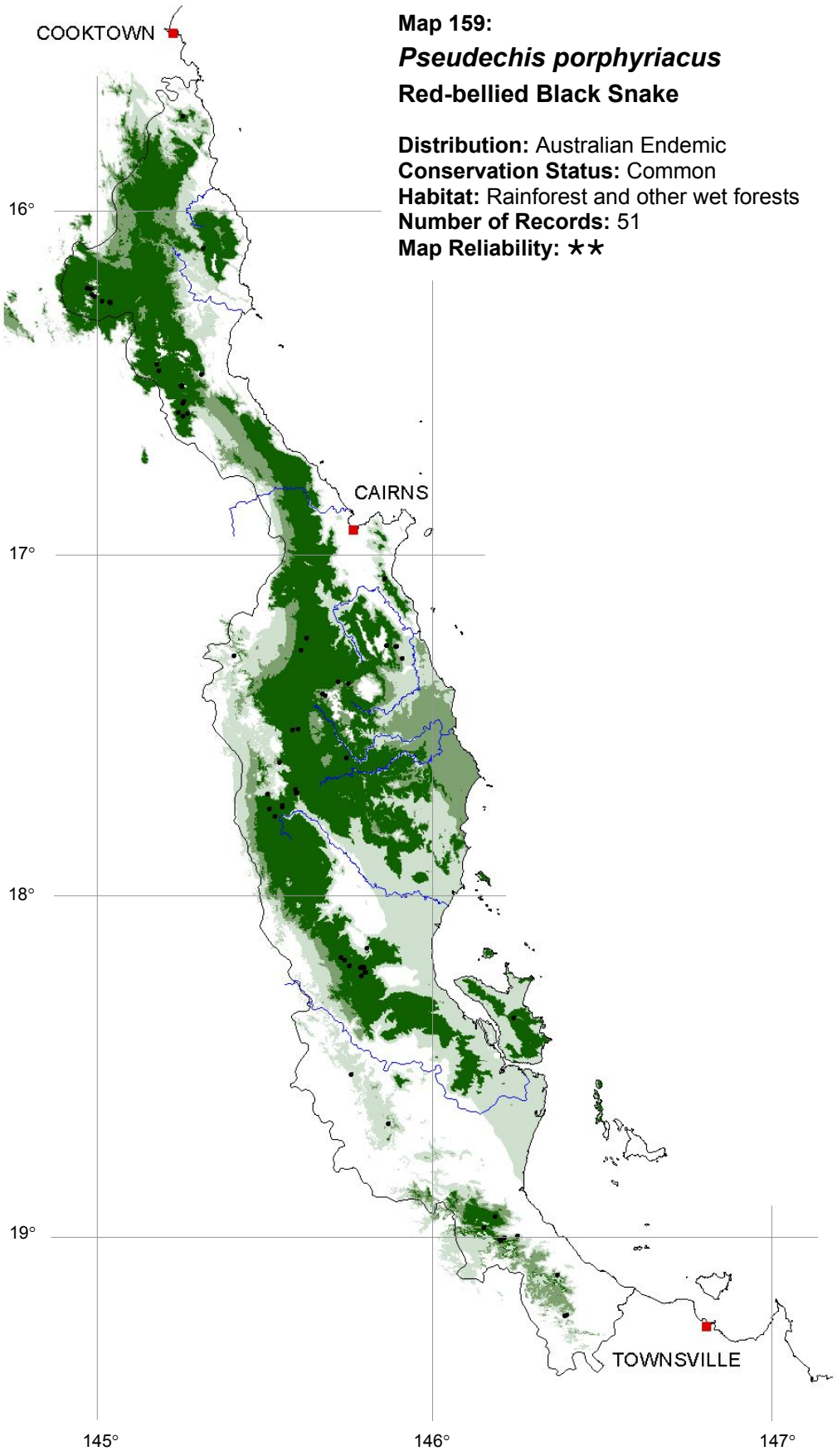


Map 158:

Hemiaspis signata

Black-bellied Swamp Snake

Distribution: East Coast Australia
Conservation Status: Not Listed
Habitat: Forest Generalist
Number of Records: 9
Map Reliability: ★★

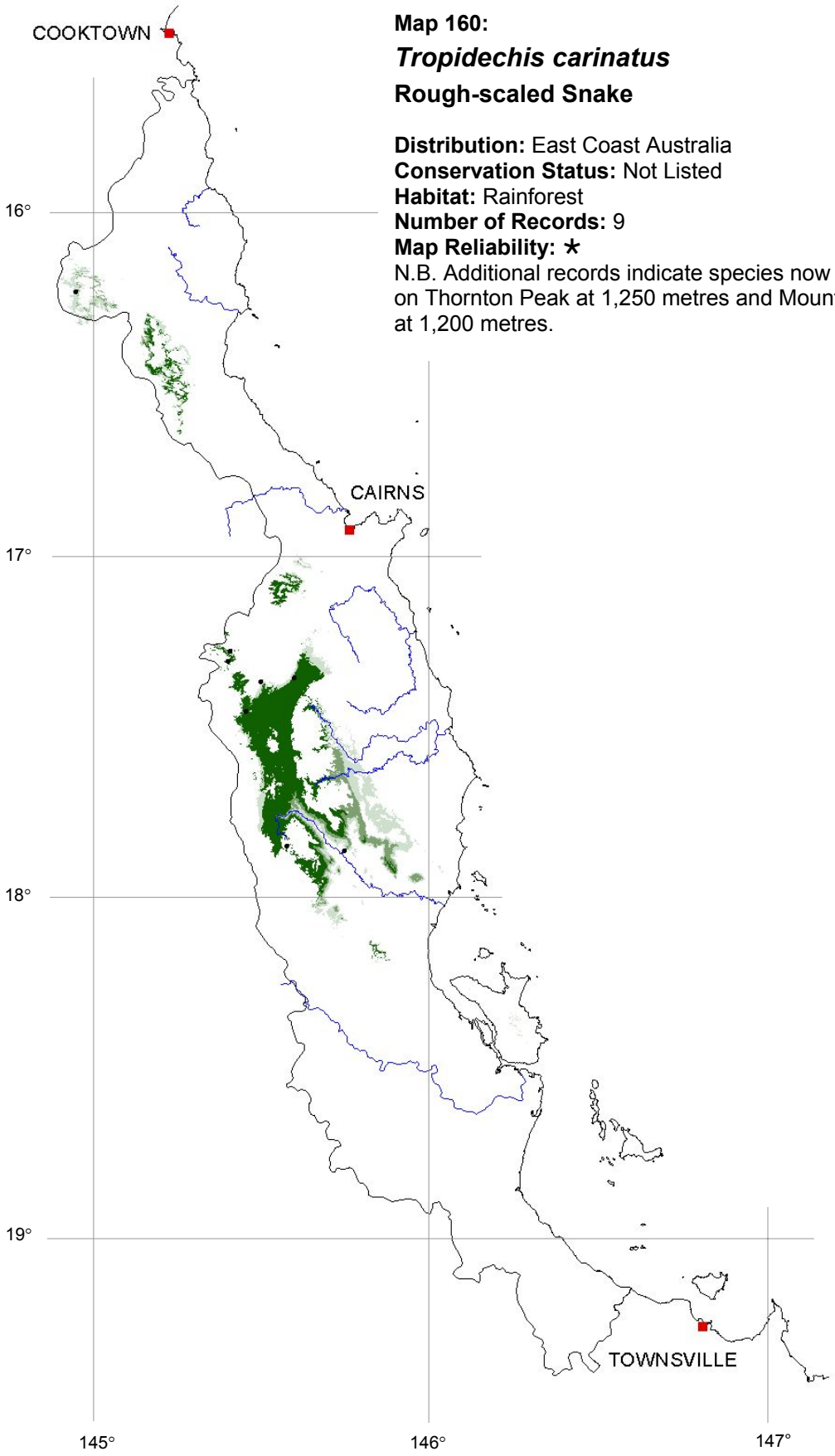


Map 159:

Pseudechis porphyriacus

Red-bellied Black Snake

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 51
Map Reliability: ★★



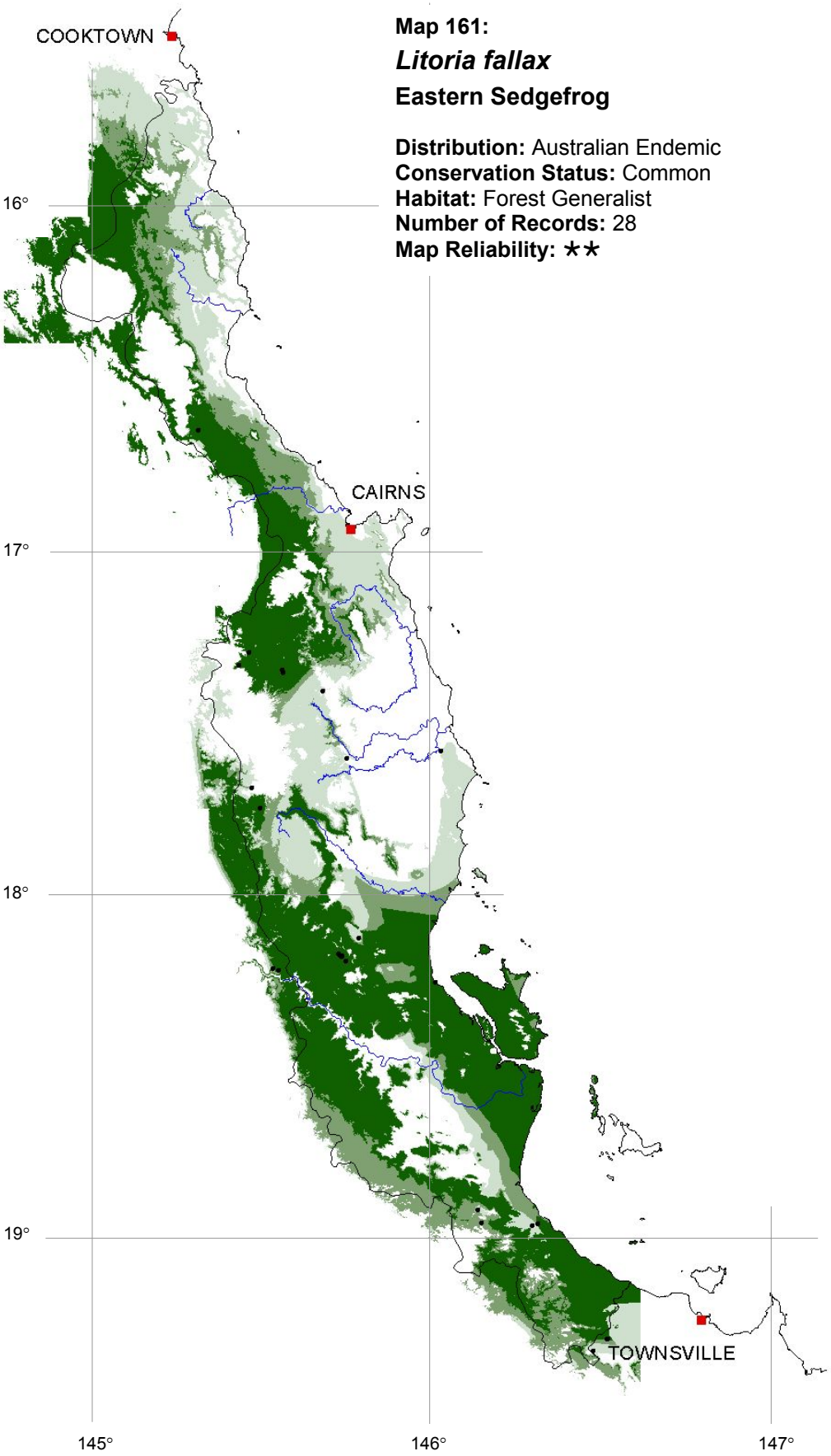
Map 160:

Tropidechis carinatus

Rough-scaled Snake

Distribution: East Coast Australia
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 9
Map Reliability: ✶
N.B. Additional records indicate species now occurs on Thornton Peak at 1,250 metres and Mount Elliot at 1,200 metres.

Frogs

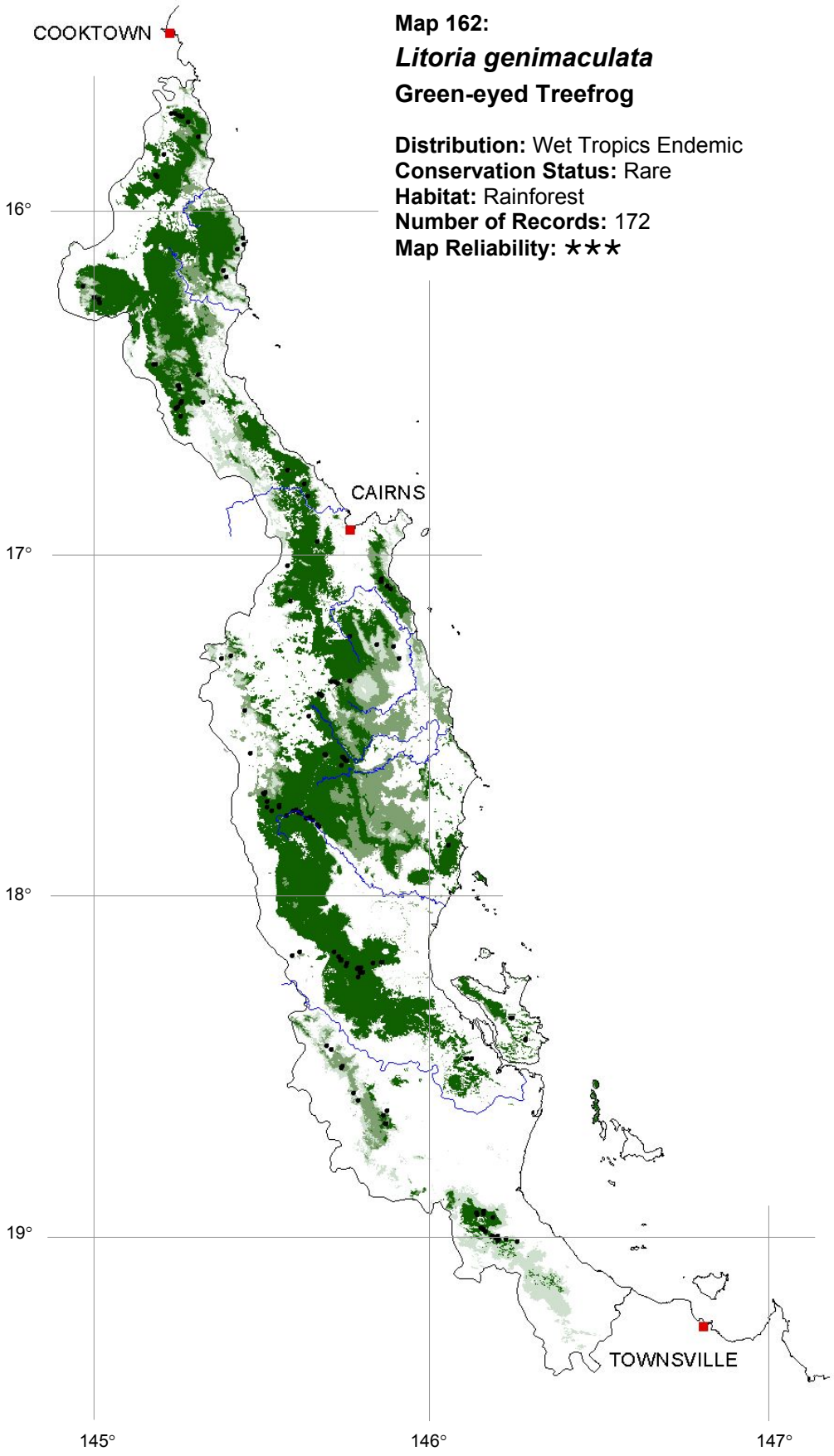


Map 161:

Litoria fallax

Eastern Sedgefrog

Distribution: Australian Endemic
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 28
Map Reliability: ★★

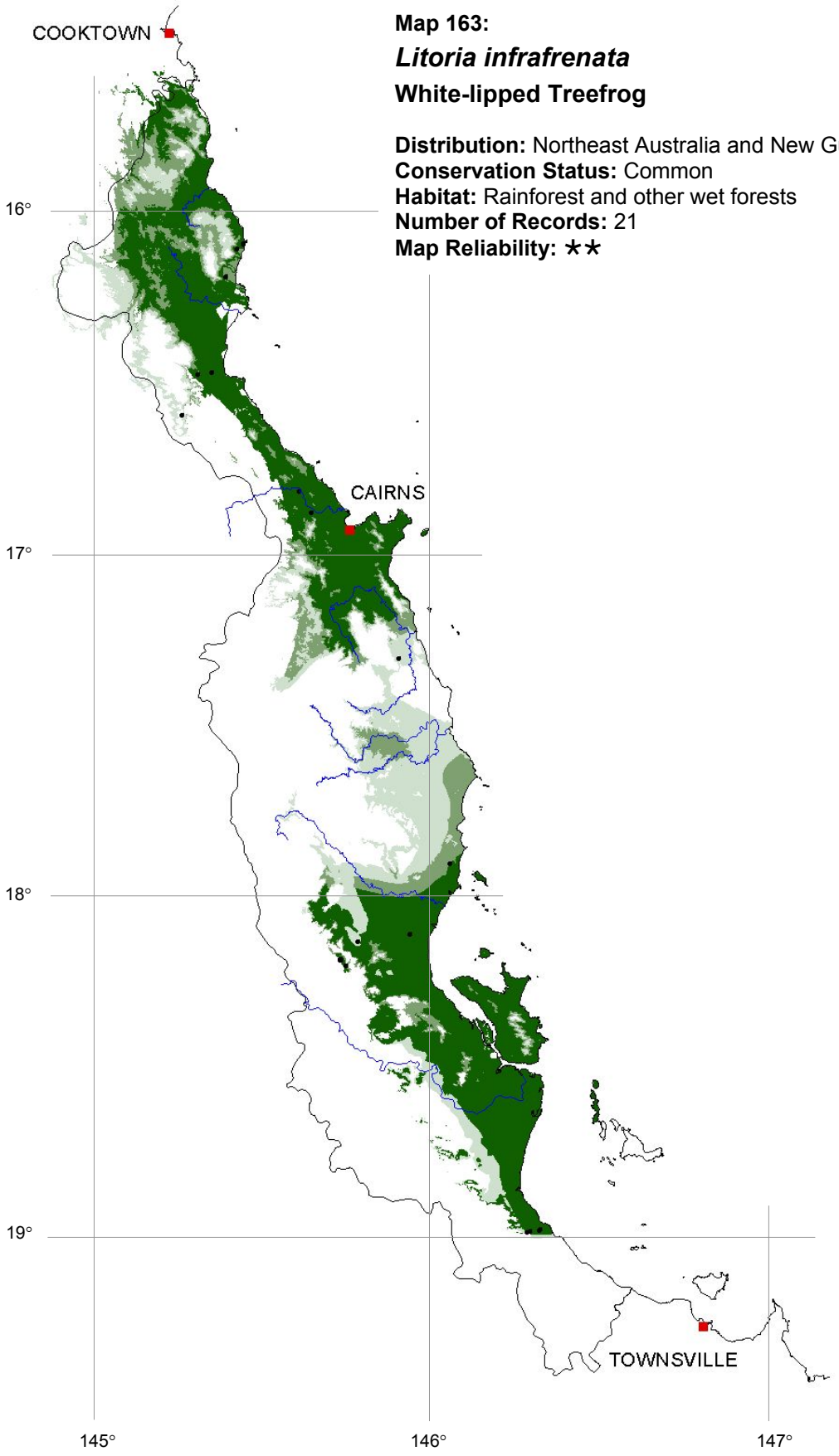


Map 162:

Litoria genimaculata

Green-eyed Treefrog

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 172
Map Reliability: ★★★

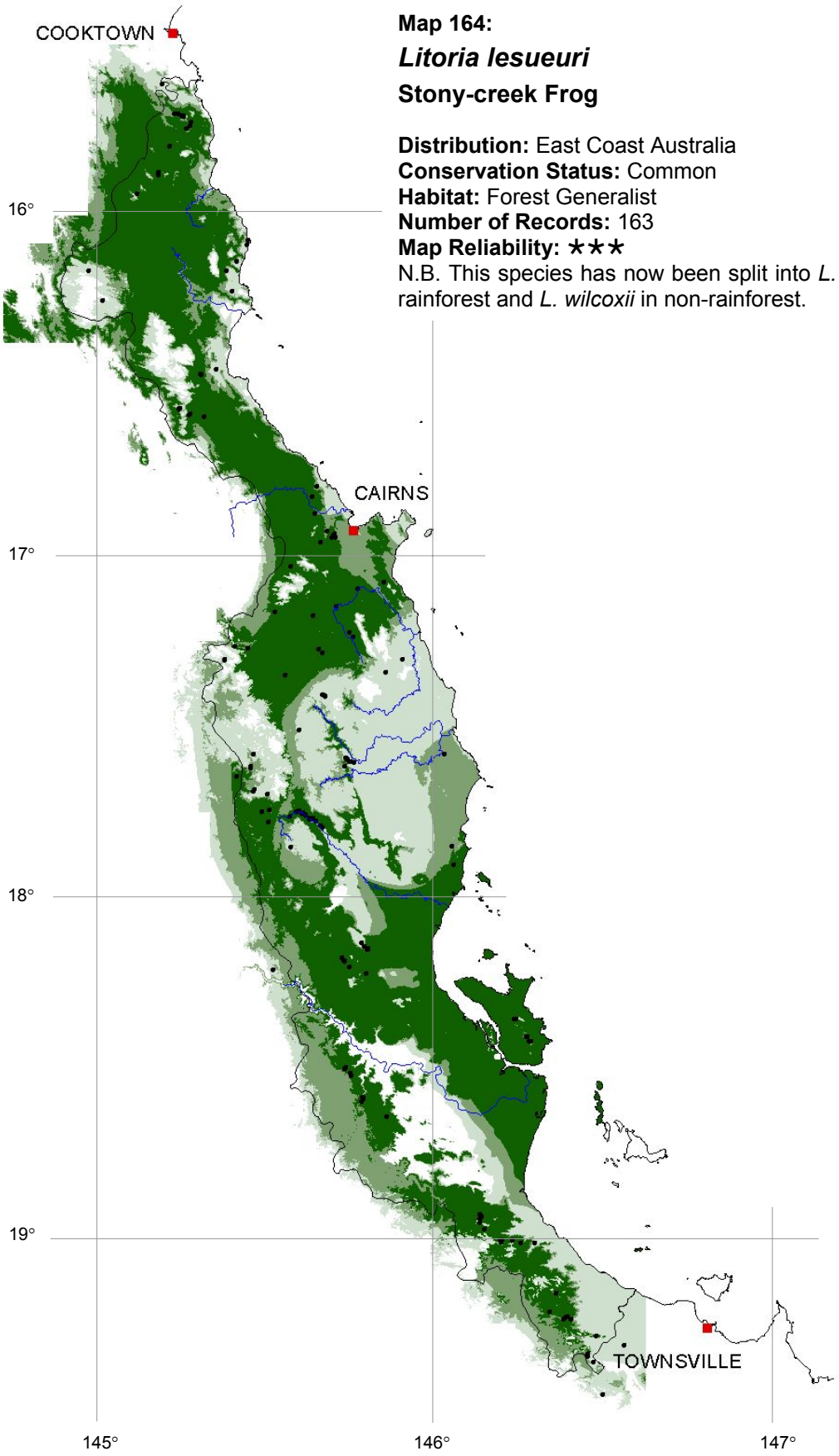


Map 163:

Litoria infrafrenata

White-lipped Treefrog

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 21
Map Reliability: ★★

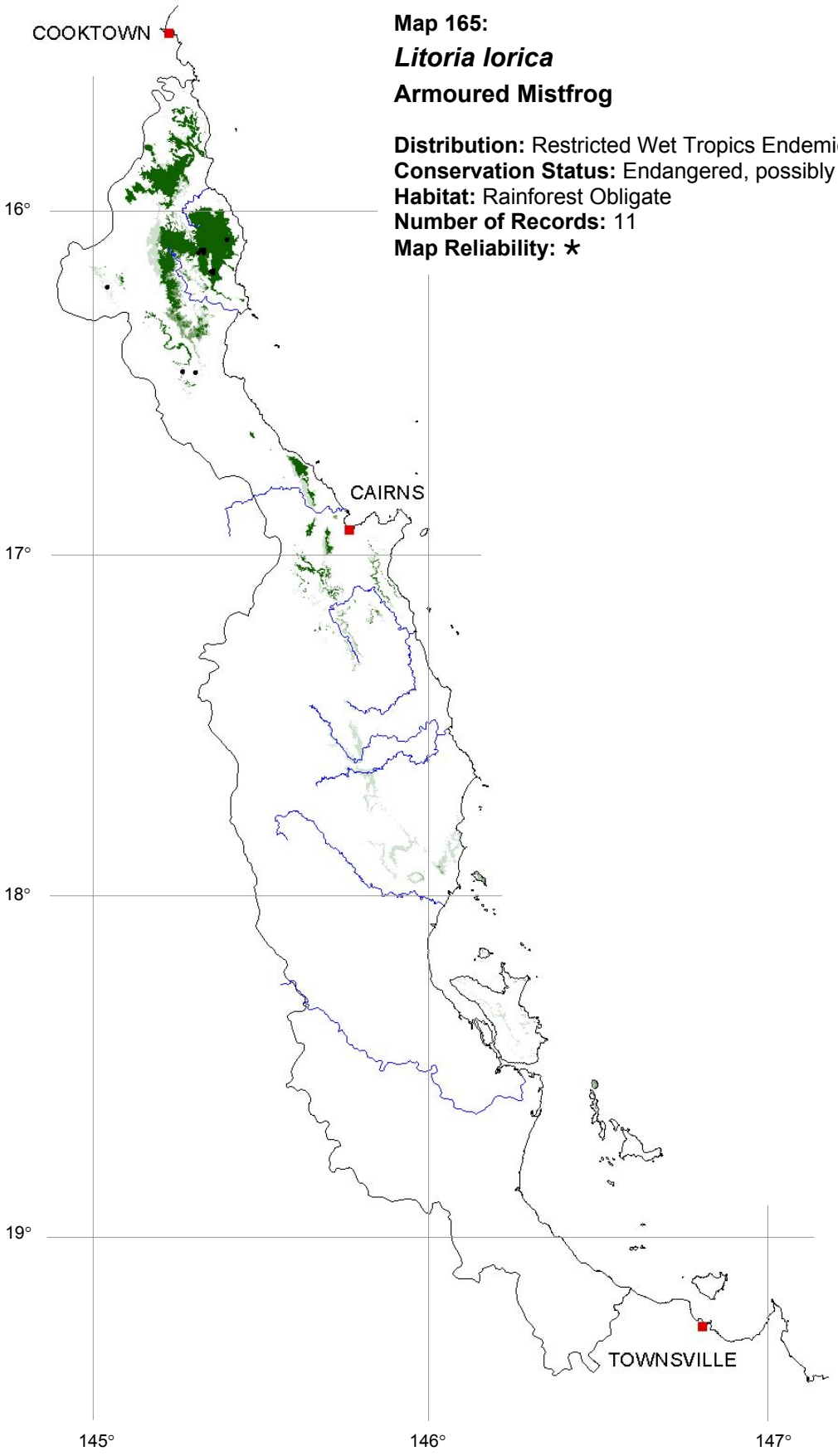


Map 164:

Litoria lesueuri

Stony-creek Frog

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 163
Map Reliability: ★★★
N.B. This species has now been split into *L. junguy* in rainforest and *L. wilcoxii* in non-rainforest.

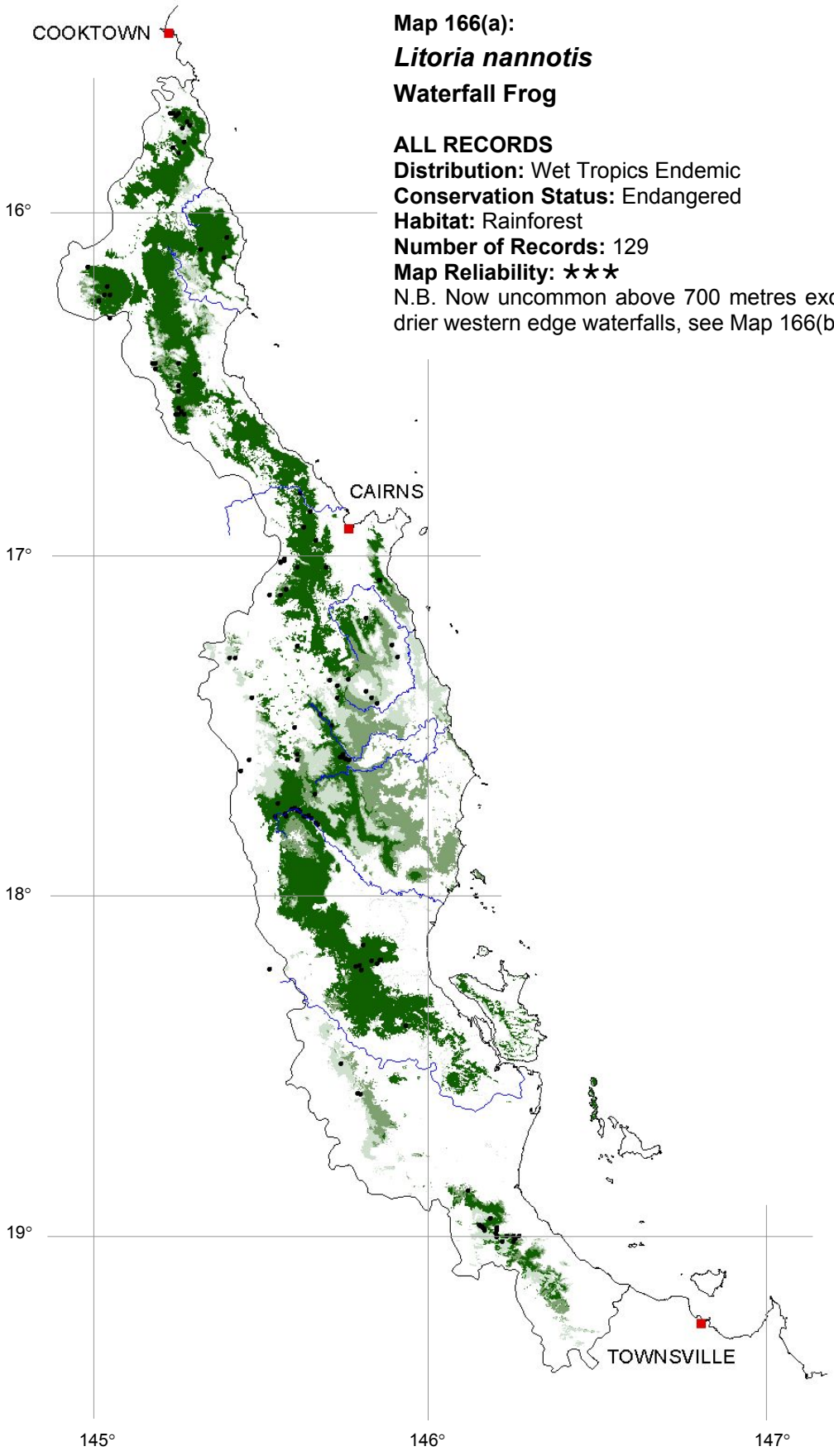


Map 165:

Litoria lorica

Armoured Mistfrog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Endangered, possibly extinct.
Habitat: Rainforest Obligate
Number of Records: 11
Map Reliability: ★

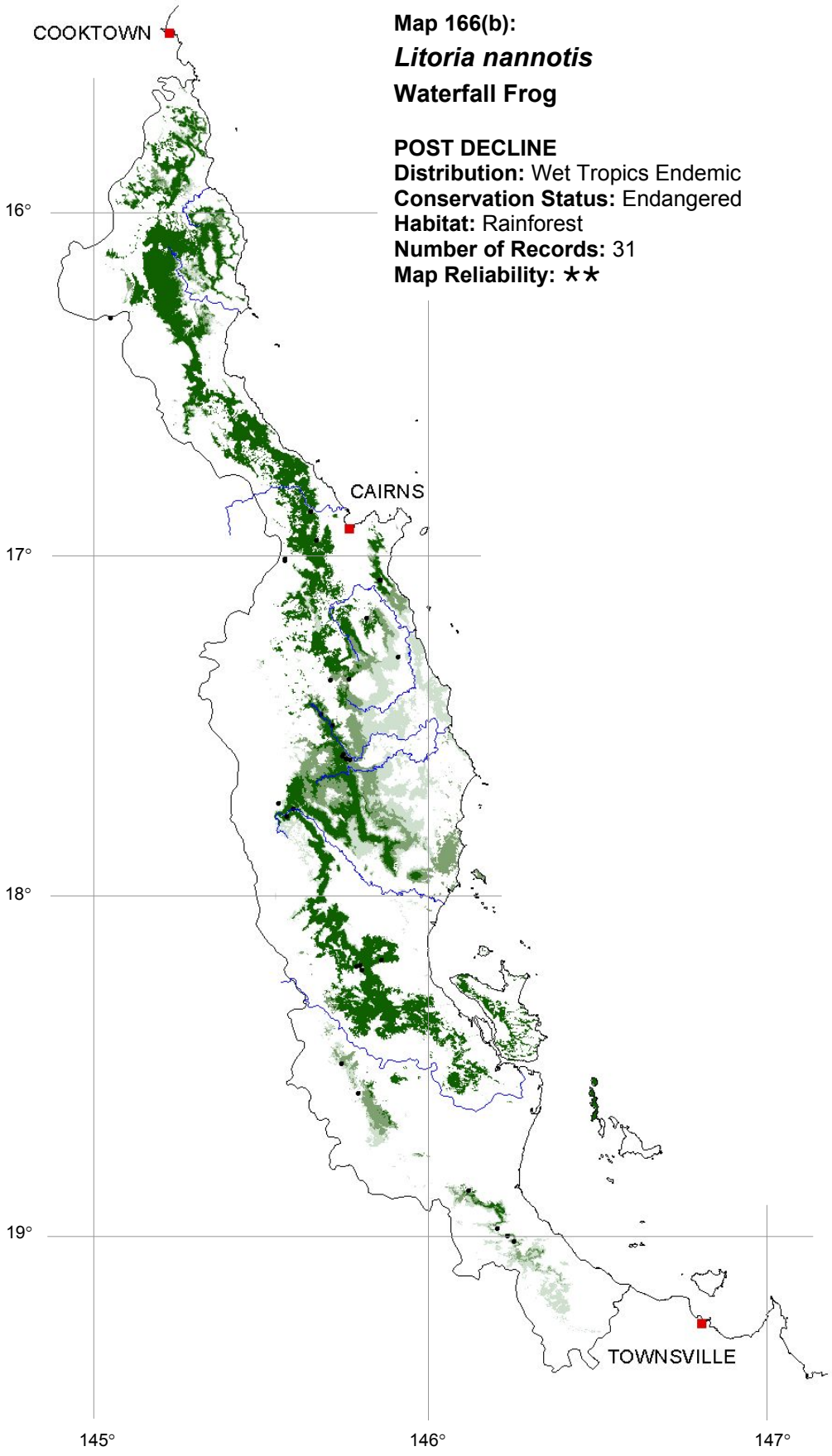


Map 166(a):

Litoria nannotis

Waterfall Frog

ALL RECORDS
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest
Number of Records: 129
Map Reliability: ★★★
N.B. Now uncommon above 700 metres except on drier western edge waterfalls, see Map 166(b).

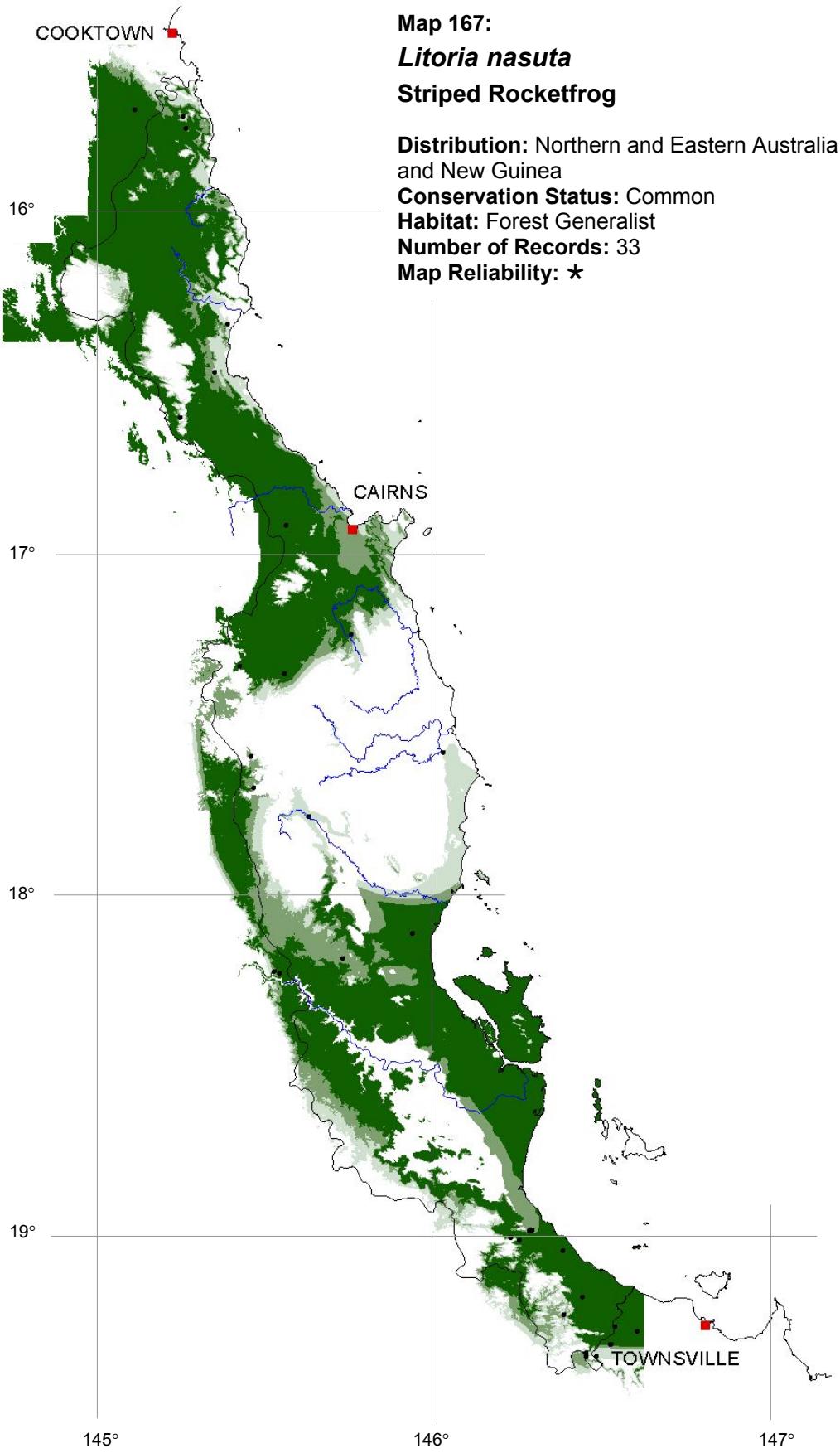


Map 166(b):

Litoria nannotis

Waterfall Frog

POST DECLINE
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest
Number of Records: 31
Map Reliability: ★★

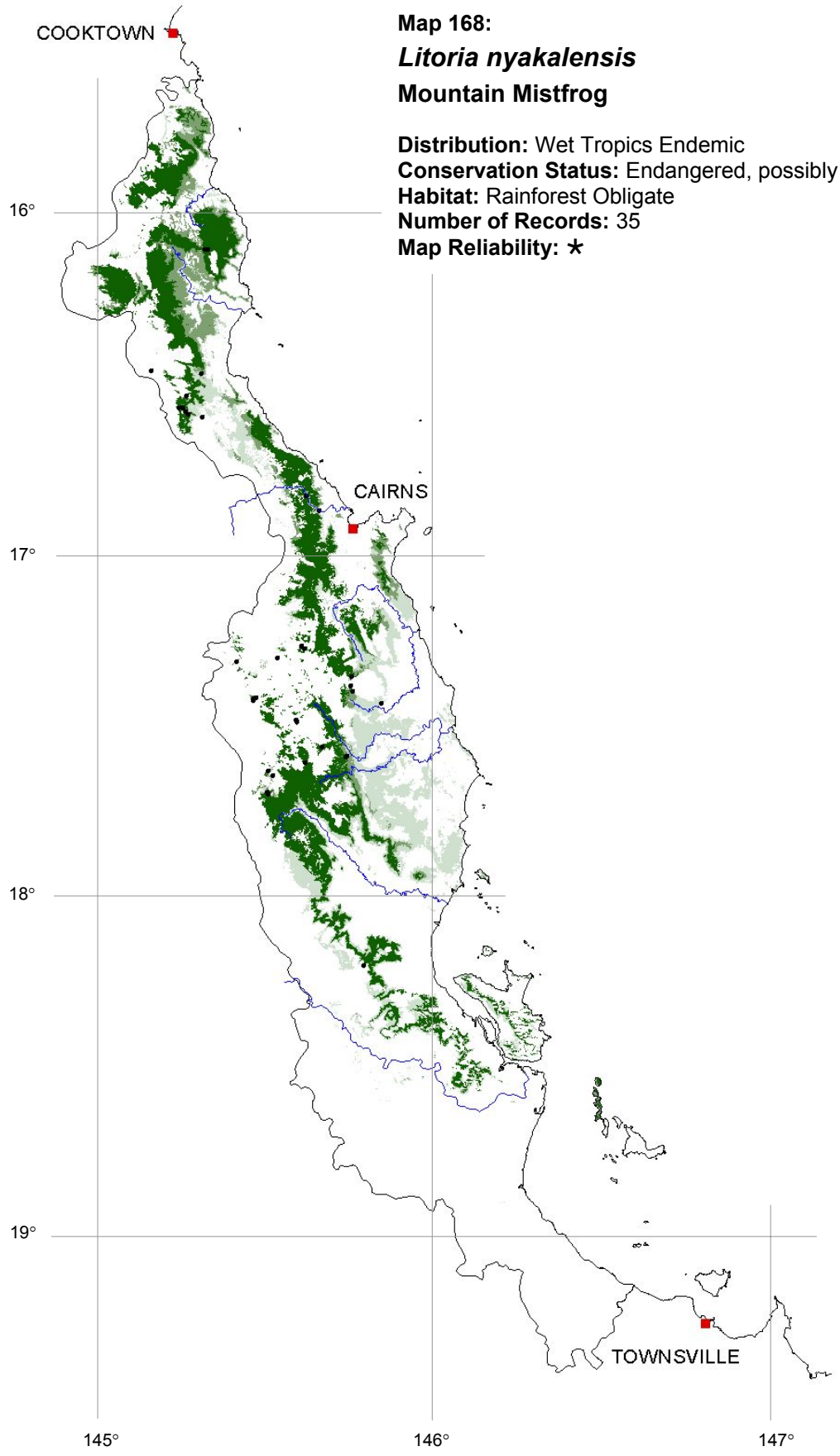


Map 167:

Litoria nasuta

Striped Rocketfrog

Distribution: Northern and Eastern Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 33
Map Reliability: ★

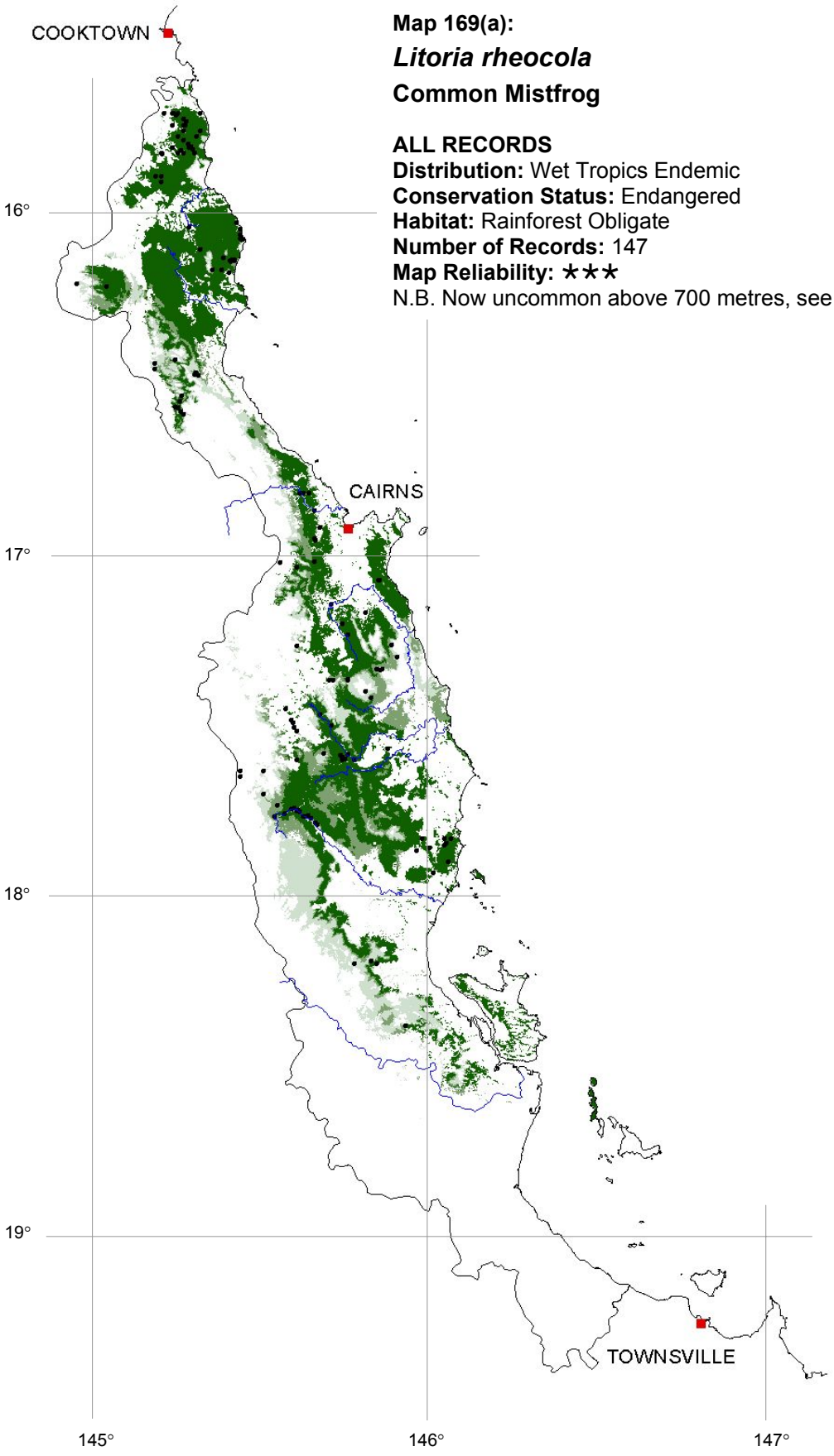


Map 168:

Litoria nyakalensis

Mountain Mistfrog

Distribution: Wet Tropics Endemic
Conservation Status: Endangered, possibly extinct.
Habitat: Rainforest Obligate
Number of Records: 35
Map Reliability: ★

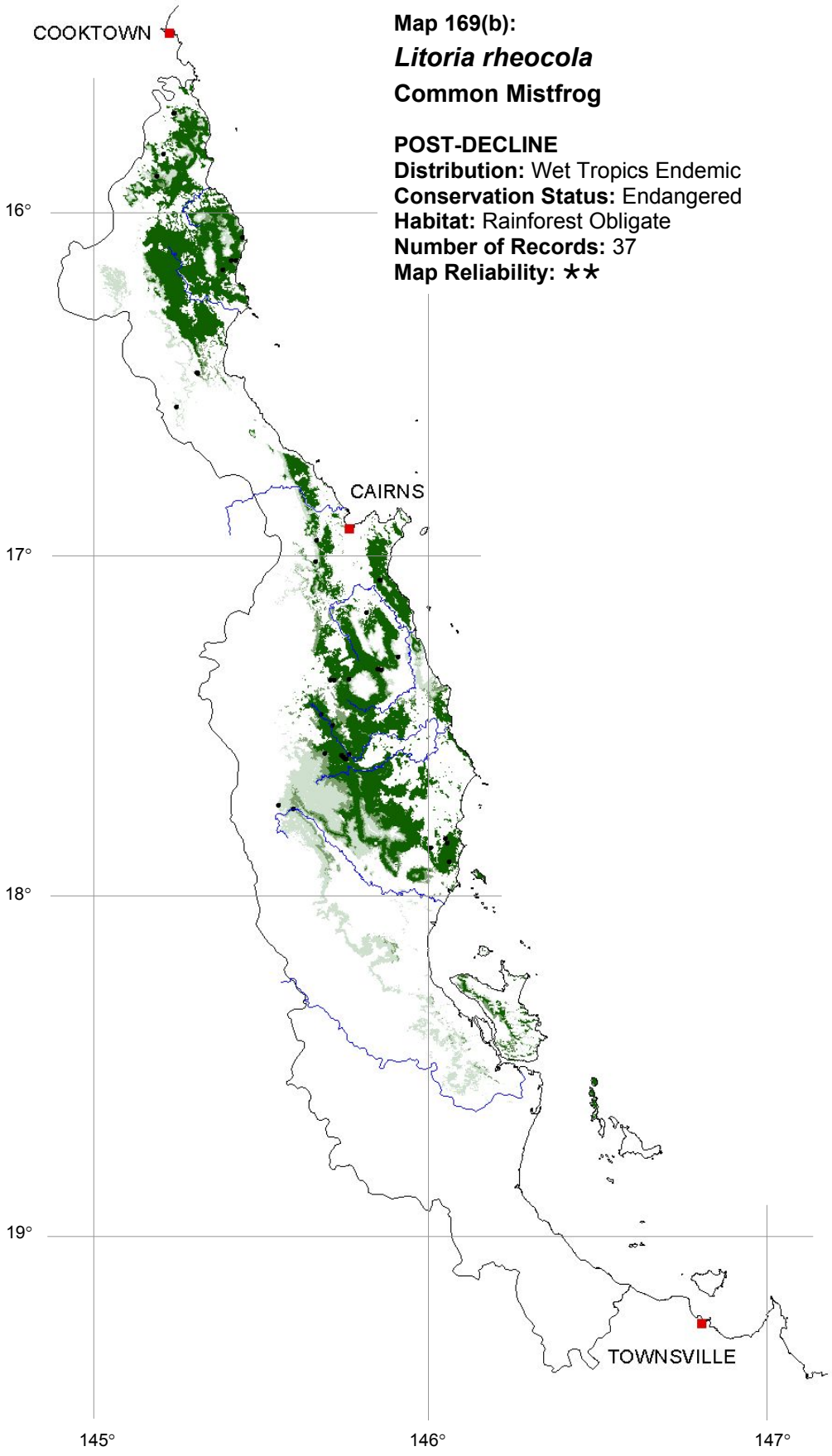


Map 169(a):

Litoria rheocola

Common Mistfrog

ALL RECORDS
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 147
Map Reliability: ★★★
N.B. Now uncommon above 700 metres, see Map 169(b).

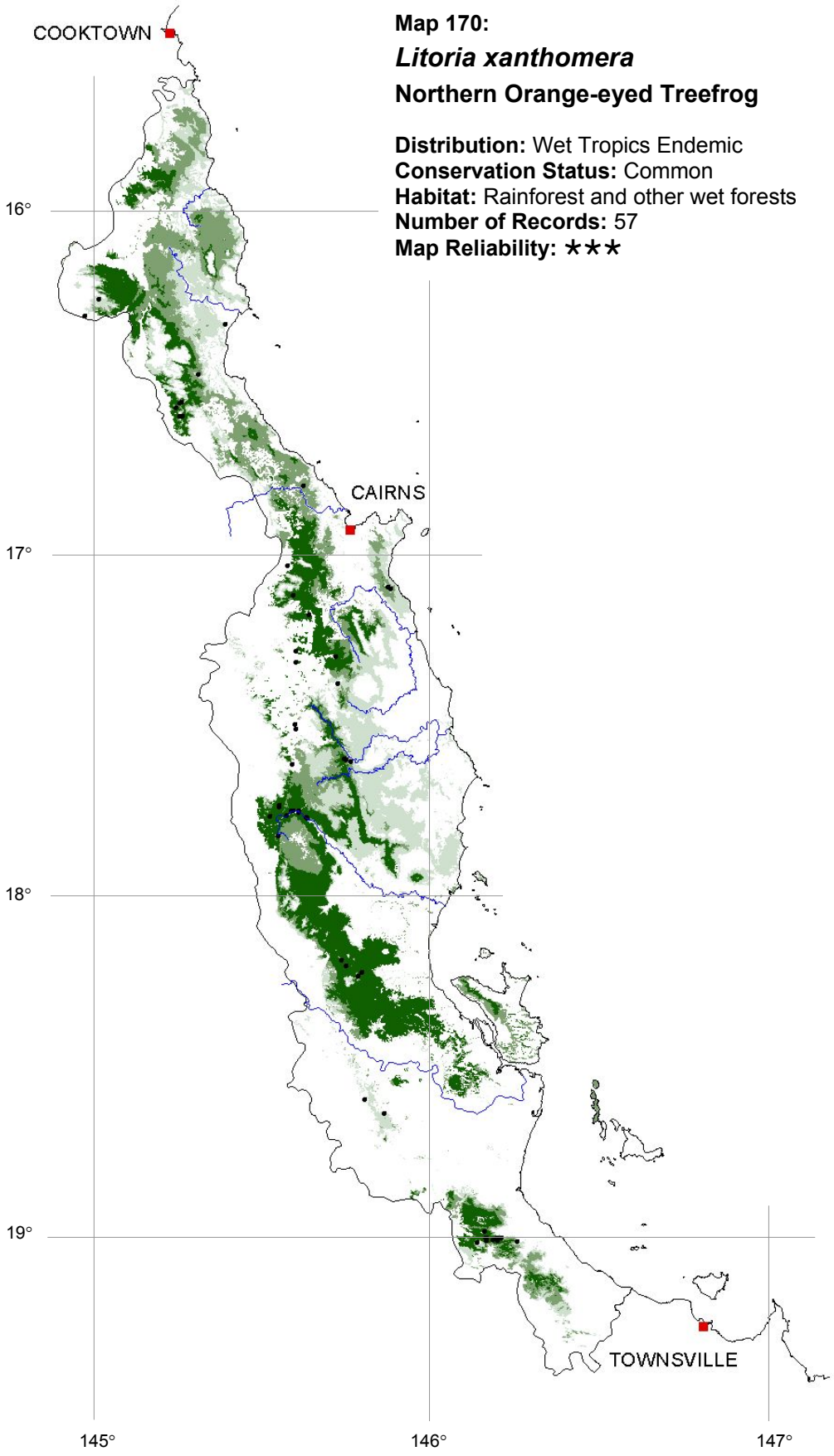


Map 169(b):

Litoria rheocola

Common Mistfrog

POST-DECLINE
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 37
Map Reliability: ★★

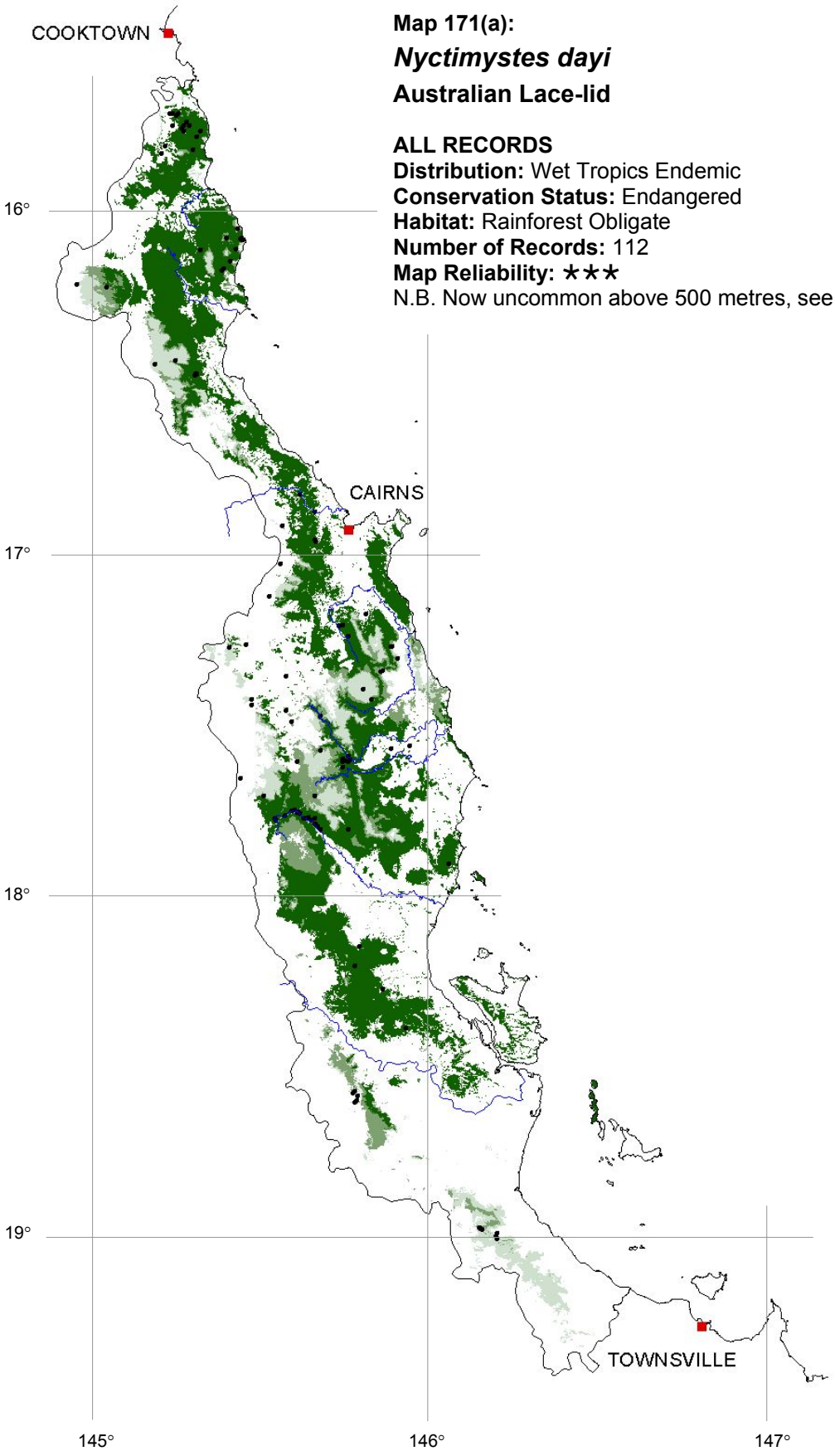


Map 170:

Litoria xanthomera

Northern Orange-eyed Treefrog

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest and other wet forests
Number of Records: 57
Map Reliability: ★★★

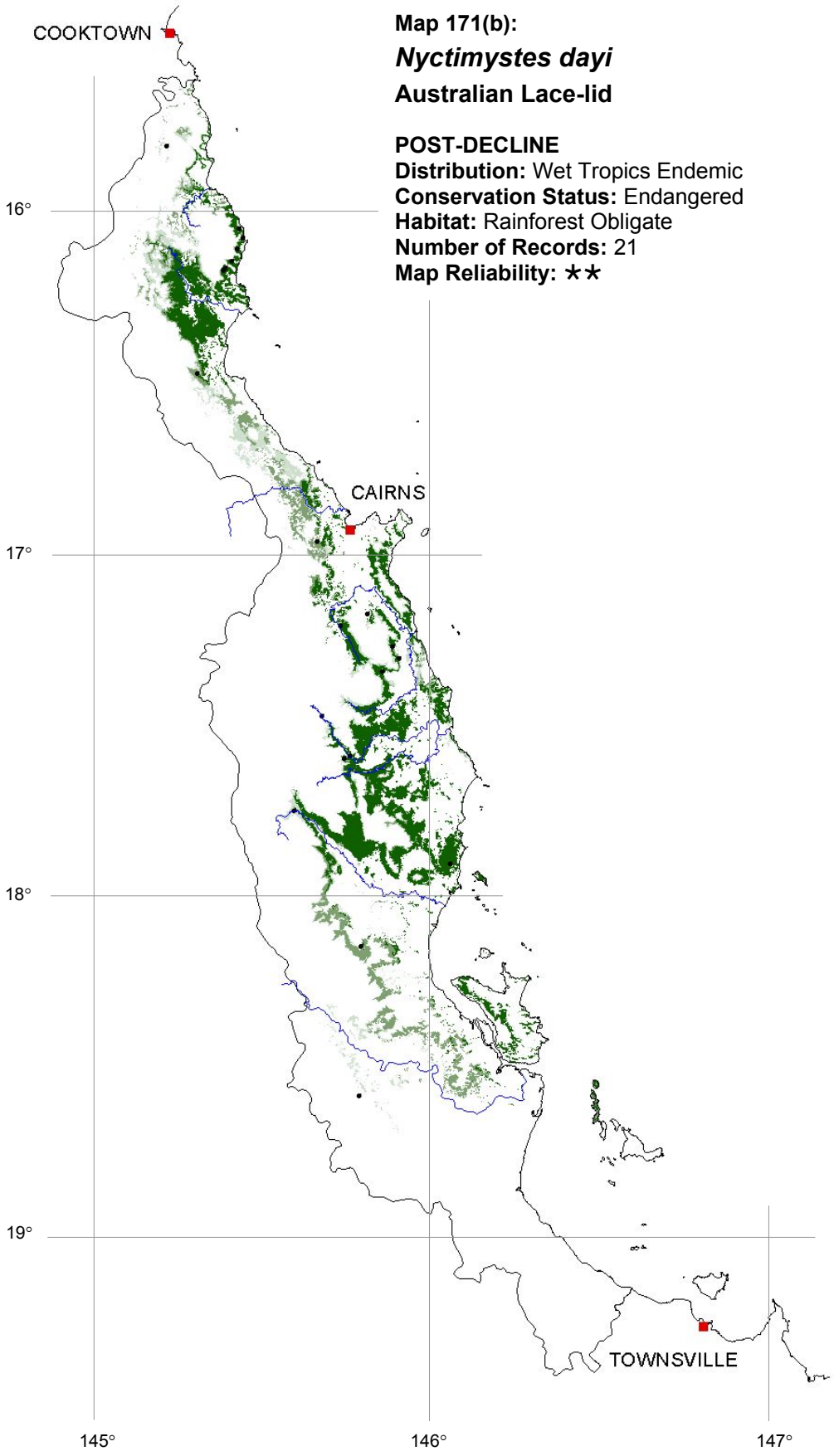


Map 171(a):

Nyctimystes dayi

Australian Lace-lid

ALL RECORDS
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 112
Map Reliability: ★★★
N.B. Now uncommon above 500 metres, see Map 171(b).

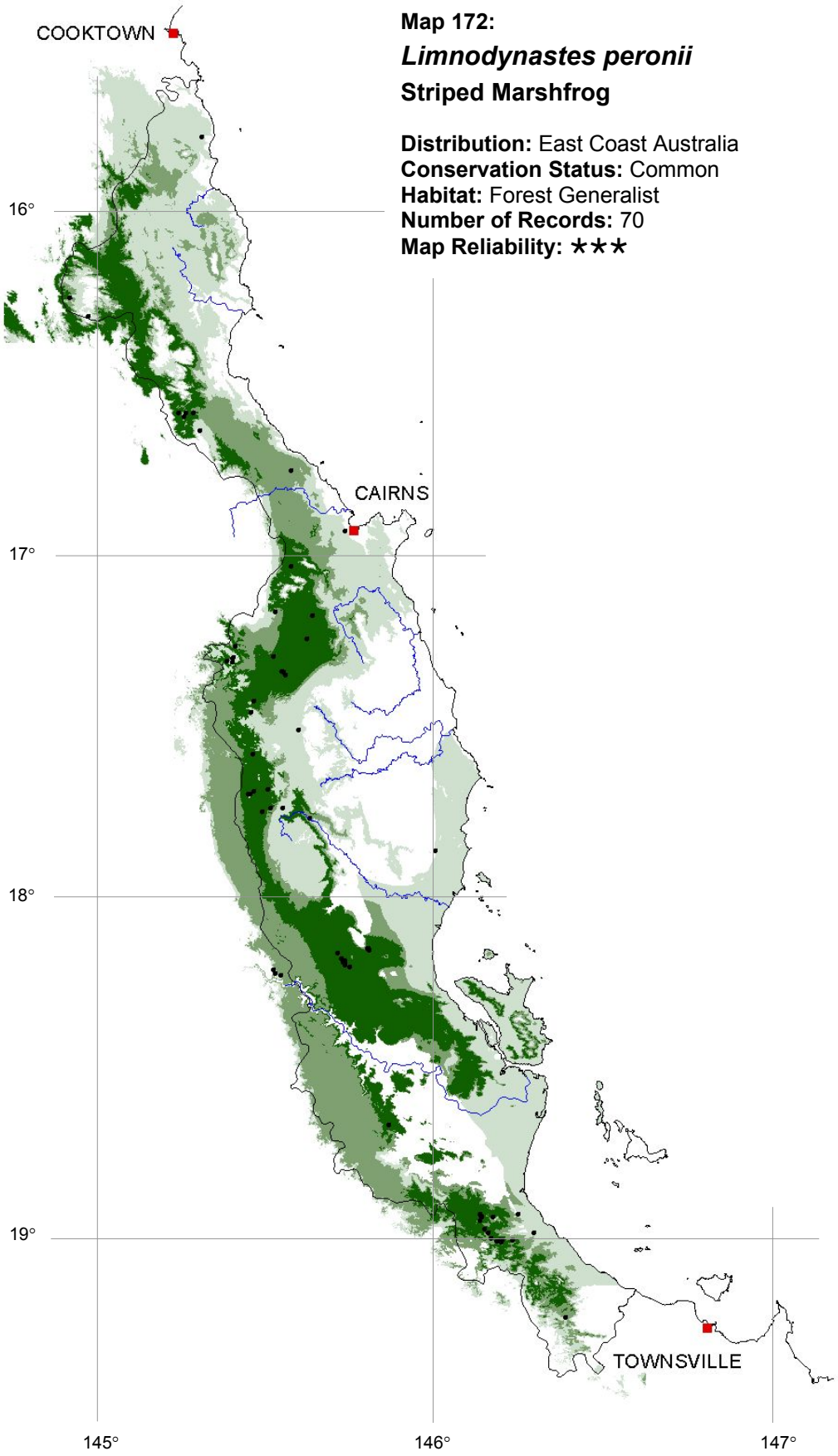


Map 171(b):

Nyctimystes dayi

Australian Lace-lid

POST-DECLINE
Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 21
Map Reliability: ★★

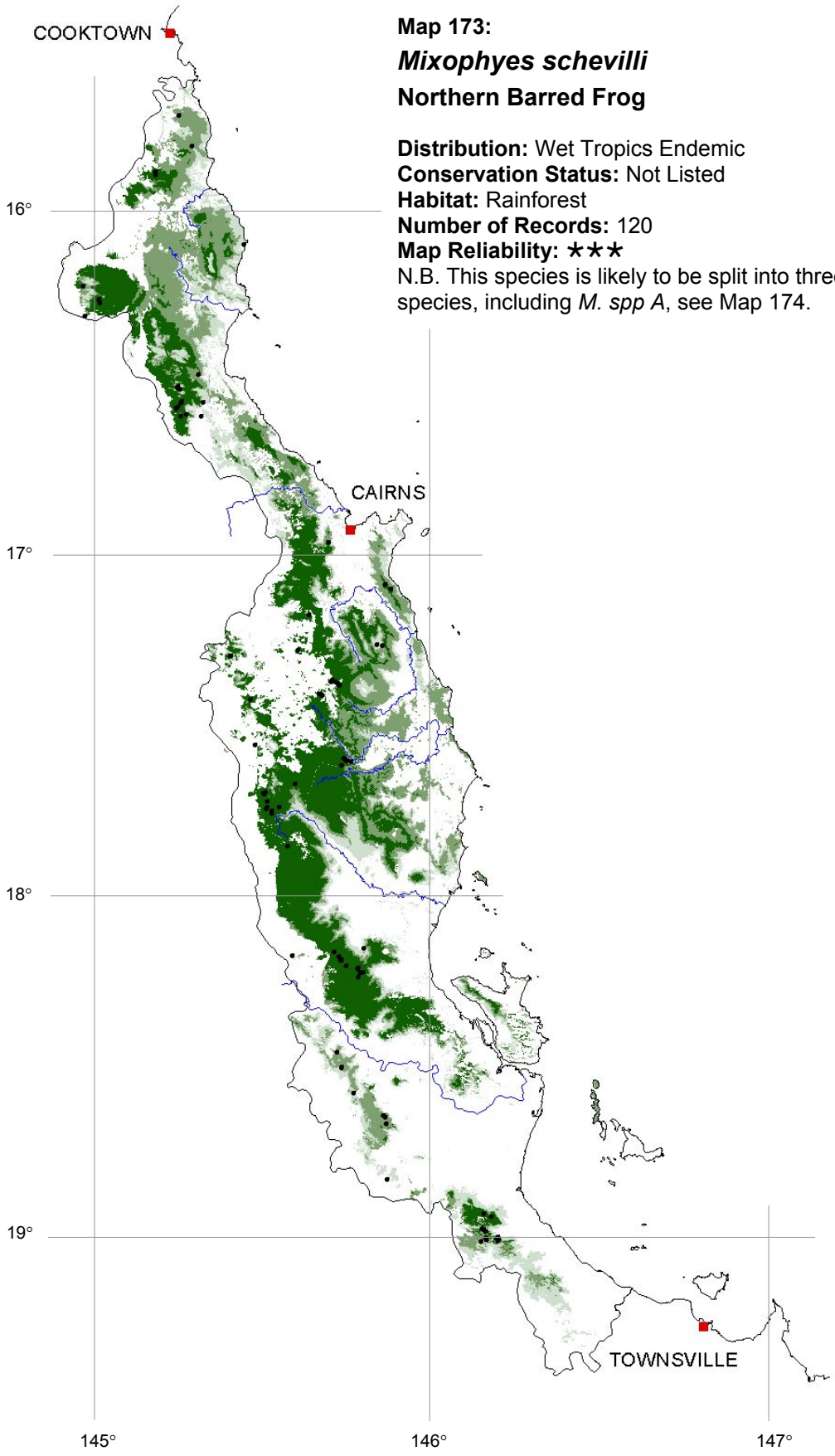


Map 172:

Limnodynastes peronii

Striped Marshfrog

Distribution: East Coast Australia
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 70
Map Reliability: ★★★

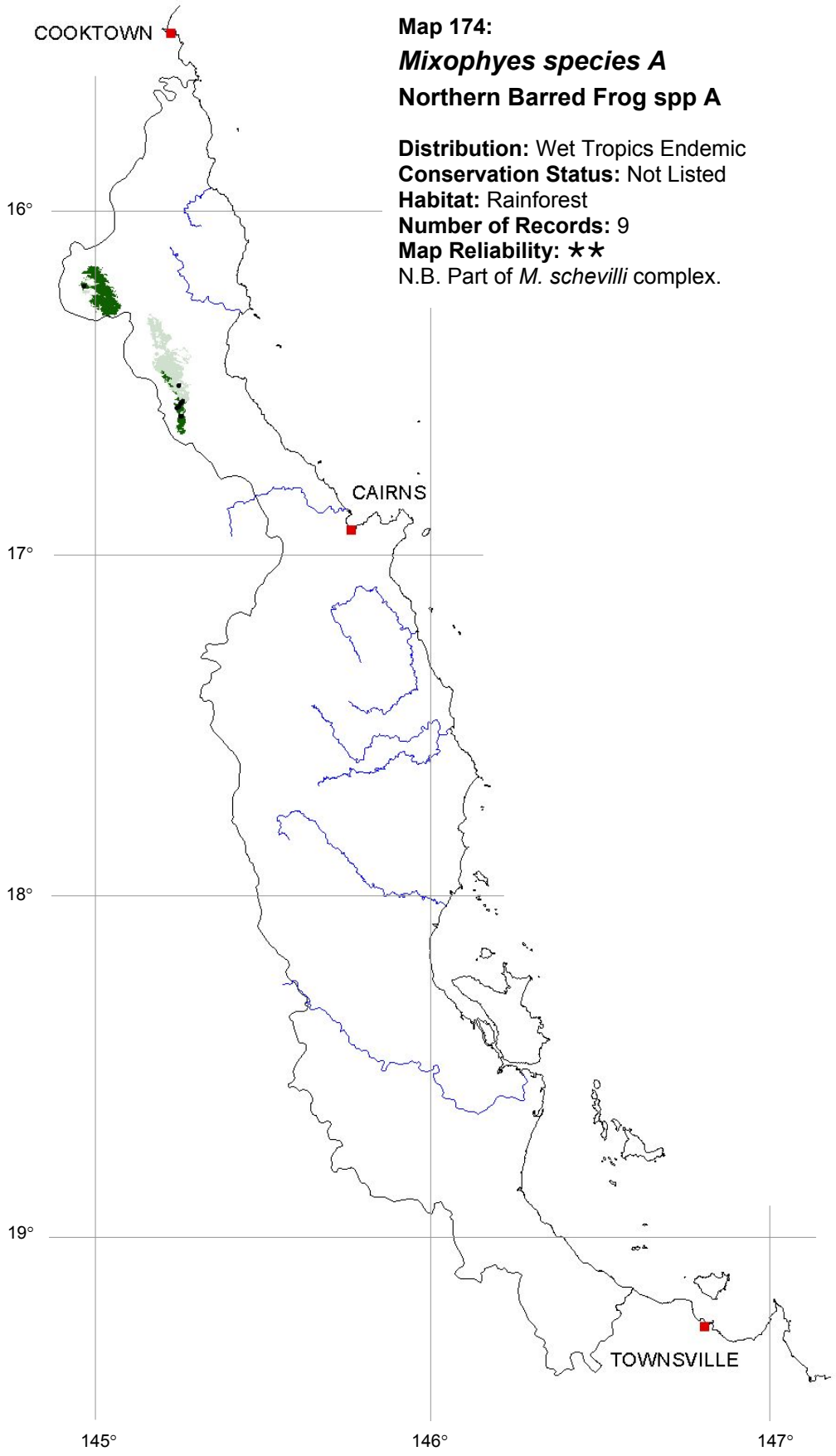


Map 173:

Mixophyes schevilli

Northern Barred Frog

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 120
Map Reliability: ★★★
N.B. This species is likely to be split into three species, including *M. spp A*, see Map 174.

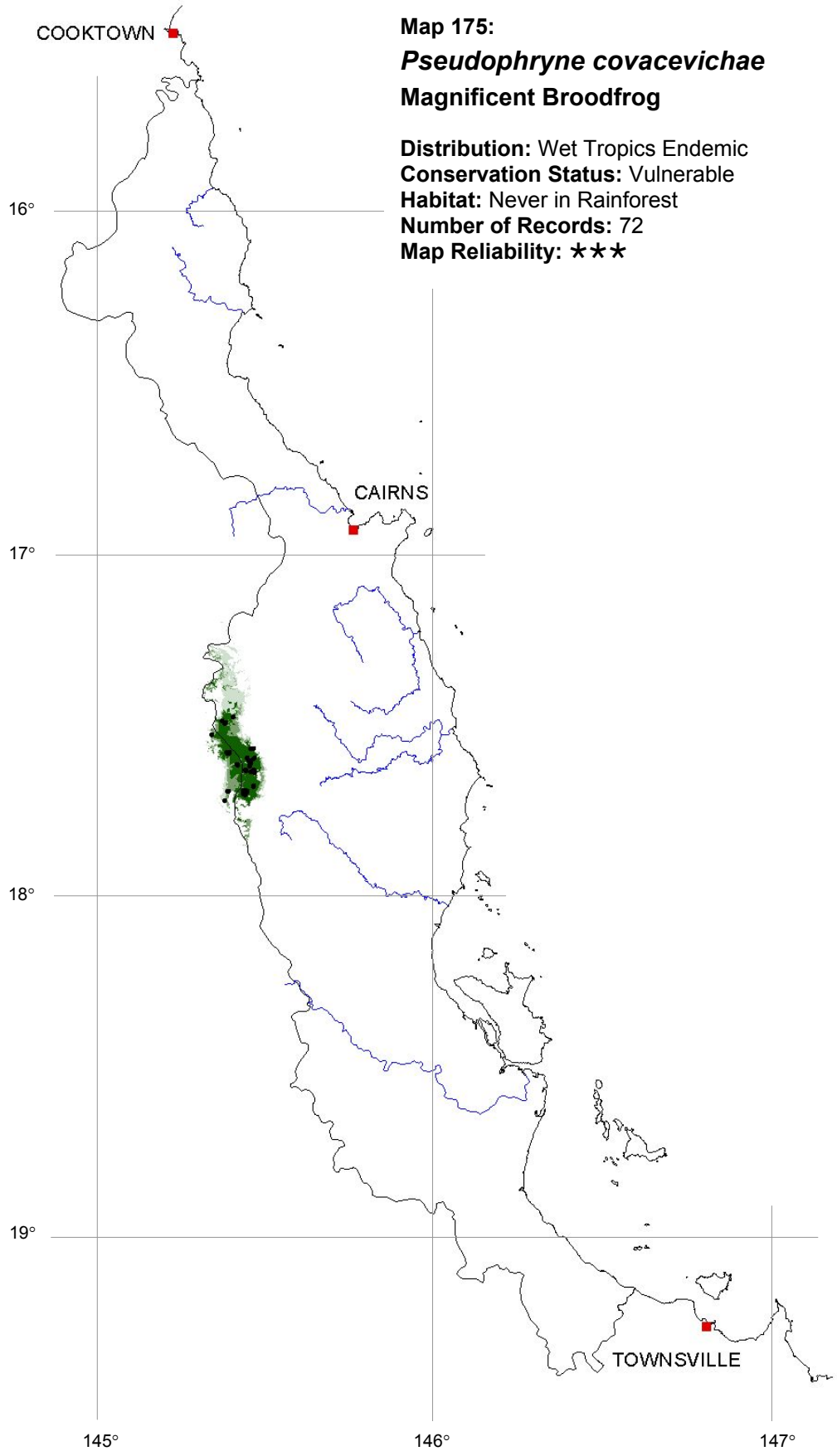


Map 174:

Mixophyes species A

Northern Barred Frog spp A

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 9
Map Reliability: ★★
N.B. Part of *M. schevilli* complex.

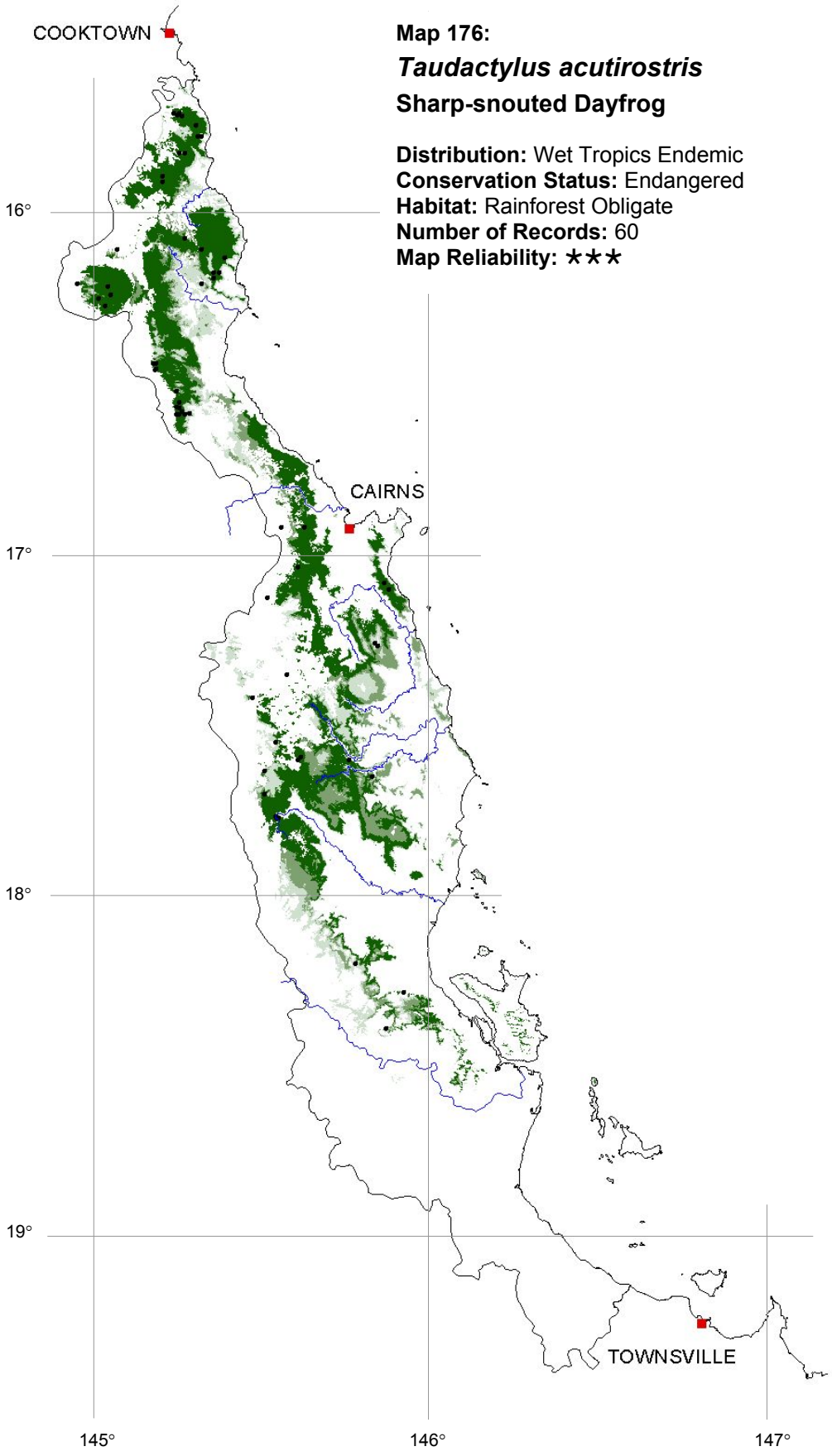


Map 175:

Pseudophryne covacevichae

Magnificent Broodfrog

Distribution: Wet Tropics Endemic
Conservation Status: Vulnerable
Habitat: Never in Rainforest
Number of Records: 72
Map Reliability: ★★★

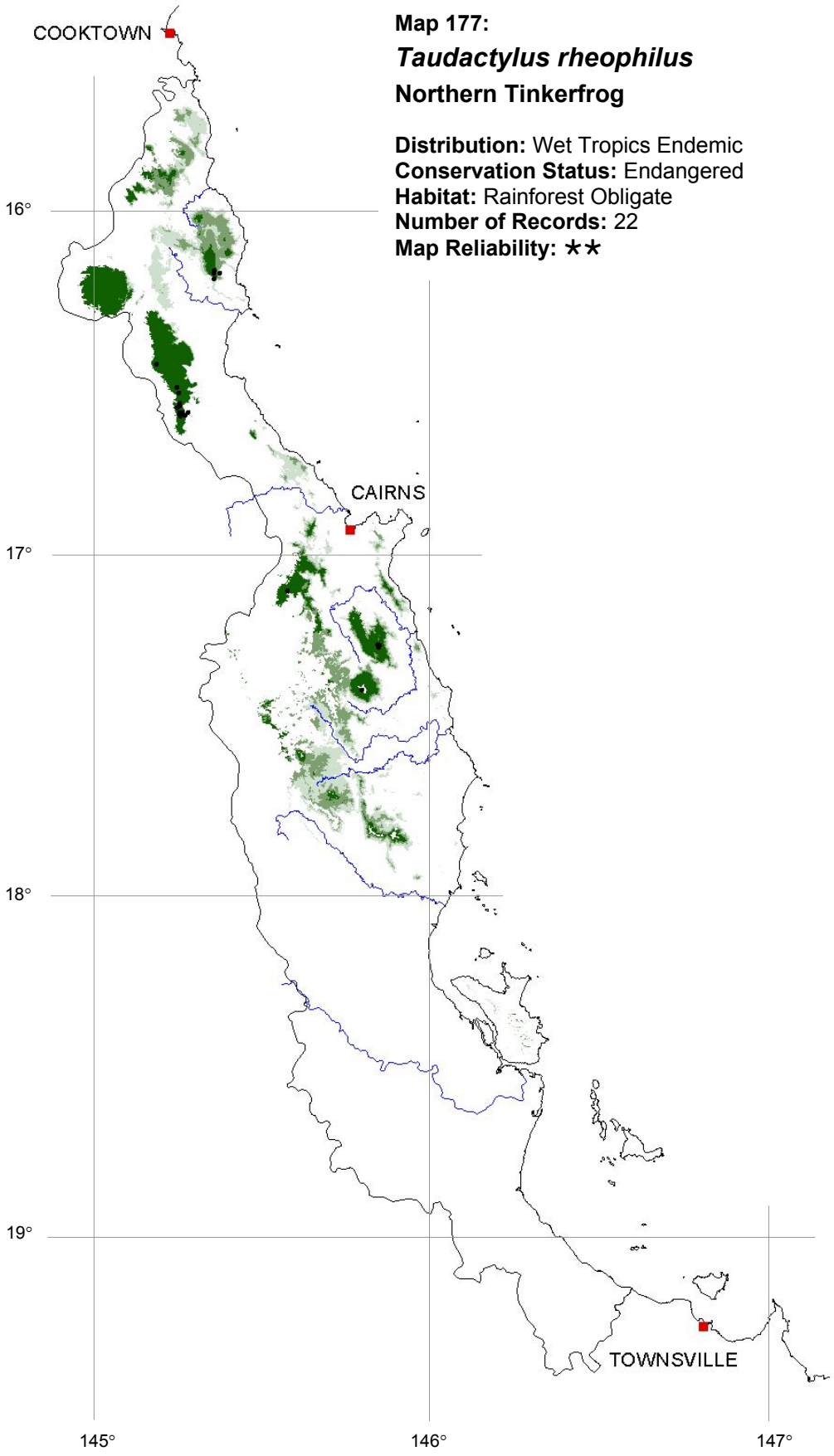


Map 176:

Taudactylus acutirostris

Sharp-snouted Dayfrog

Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 60
Map Reliability: ★★★

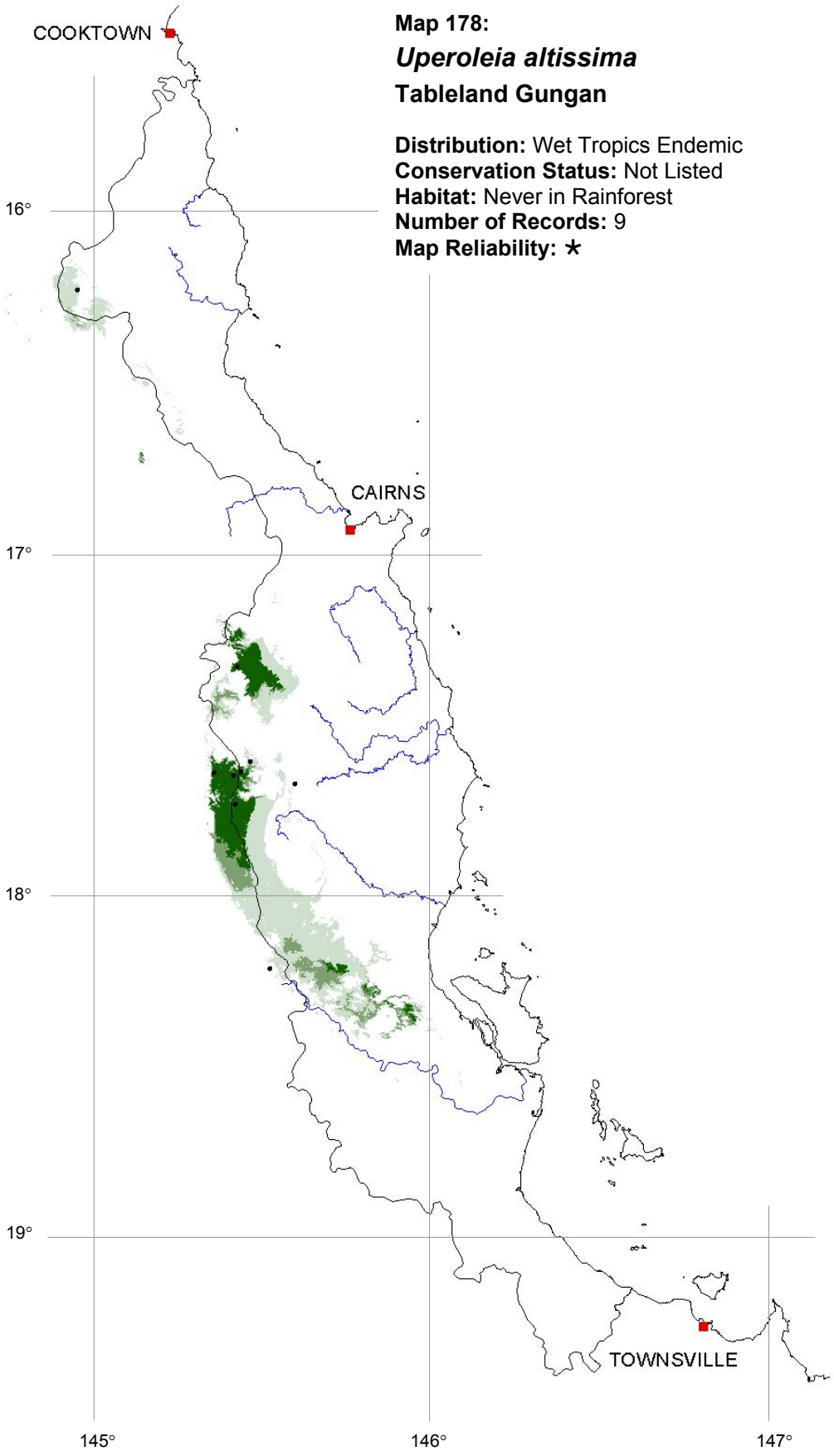


Map 177:

Taudactylus rheophilus

Northern Tinkerfrog

Distribution: Wet Tropics Endemic
Conservation Status: Endangered
Habitat: Rainforest Obligate
Number of Records: 22
Map Reliability: ★★

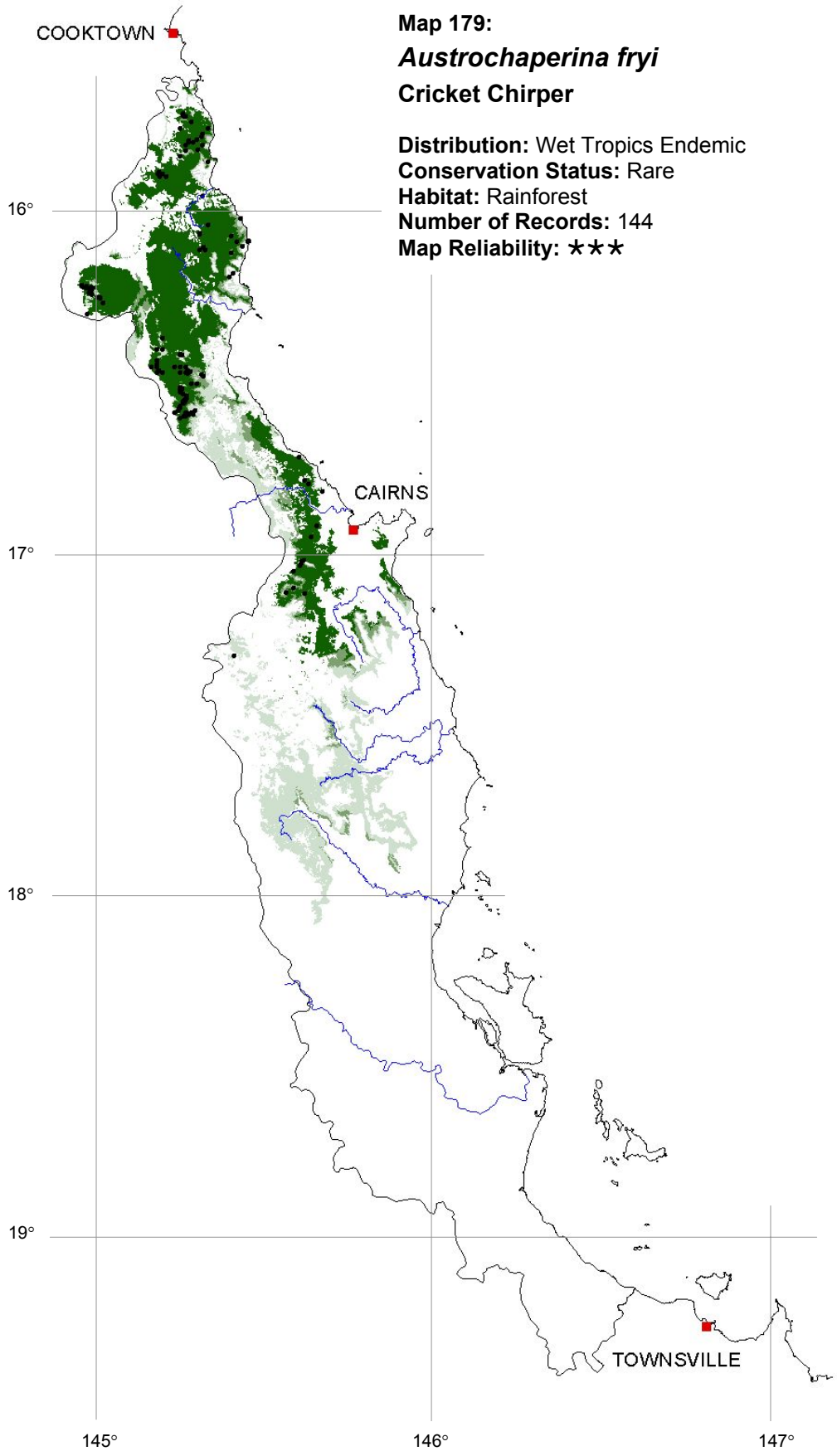


Map 178:

Uperoleia altissima

Tableland Gungan

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Never in Rainforest
Number of Records: 9
Map Reliability: ★

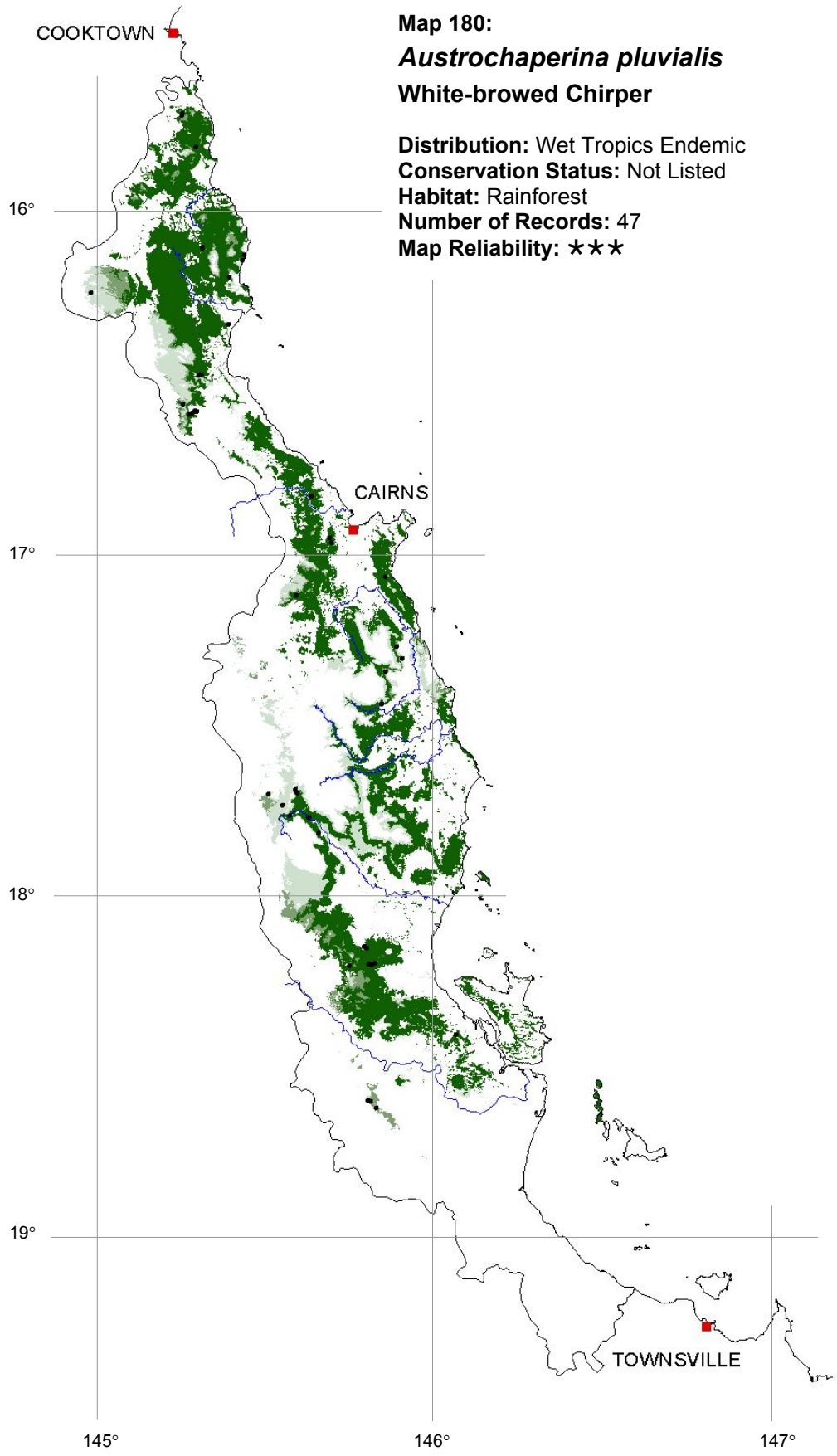


Map 179:

Austrochaperina fryi

Cricket Chirper

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 144
Map Reliability: ★★★

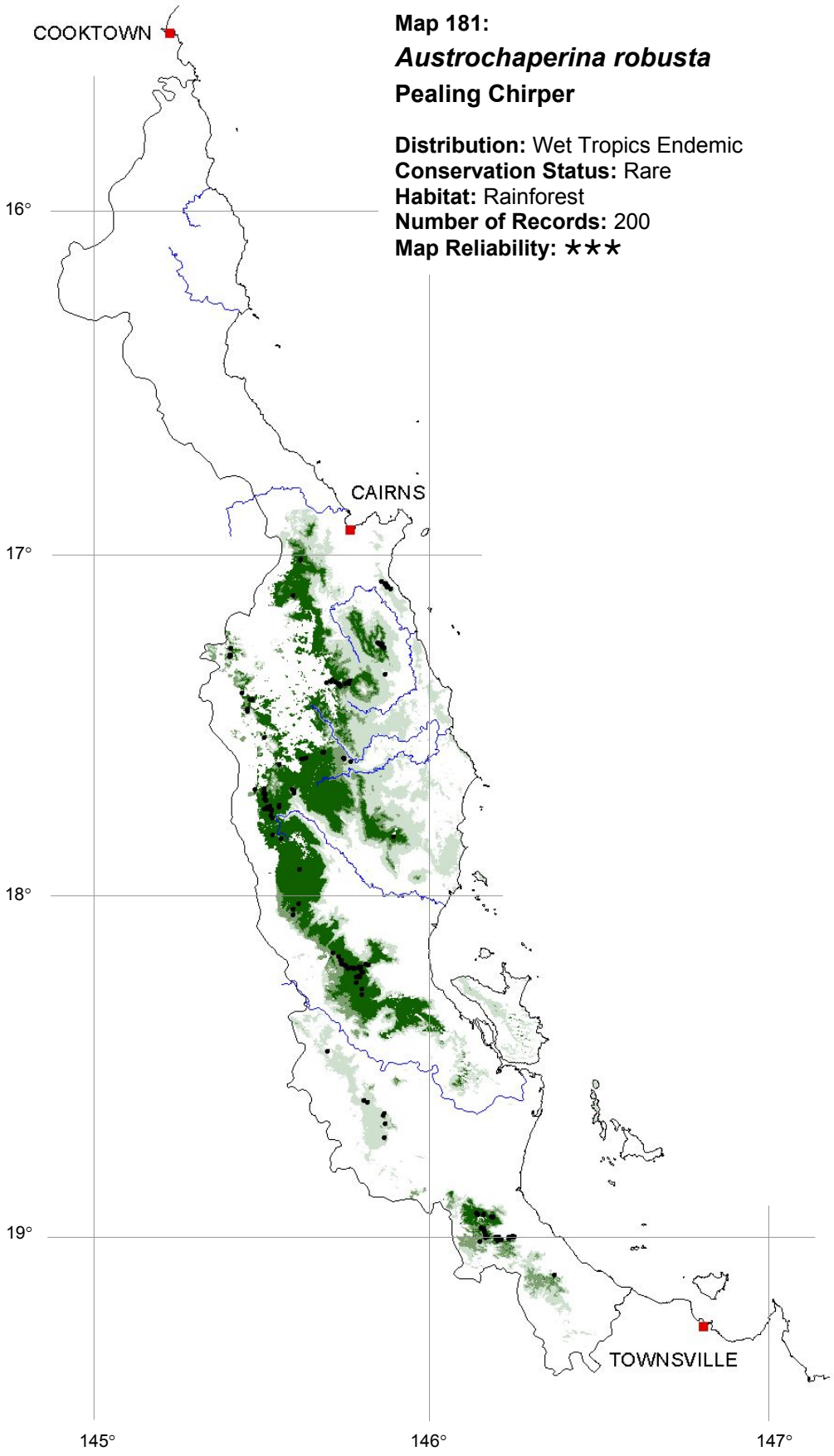


Map 180:

Austrochaperina pluvialis

White-browed Chirper

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest
Number of Records: 47
Map Reliability: ★★★

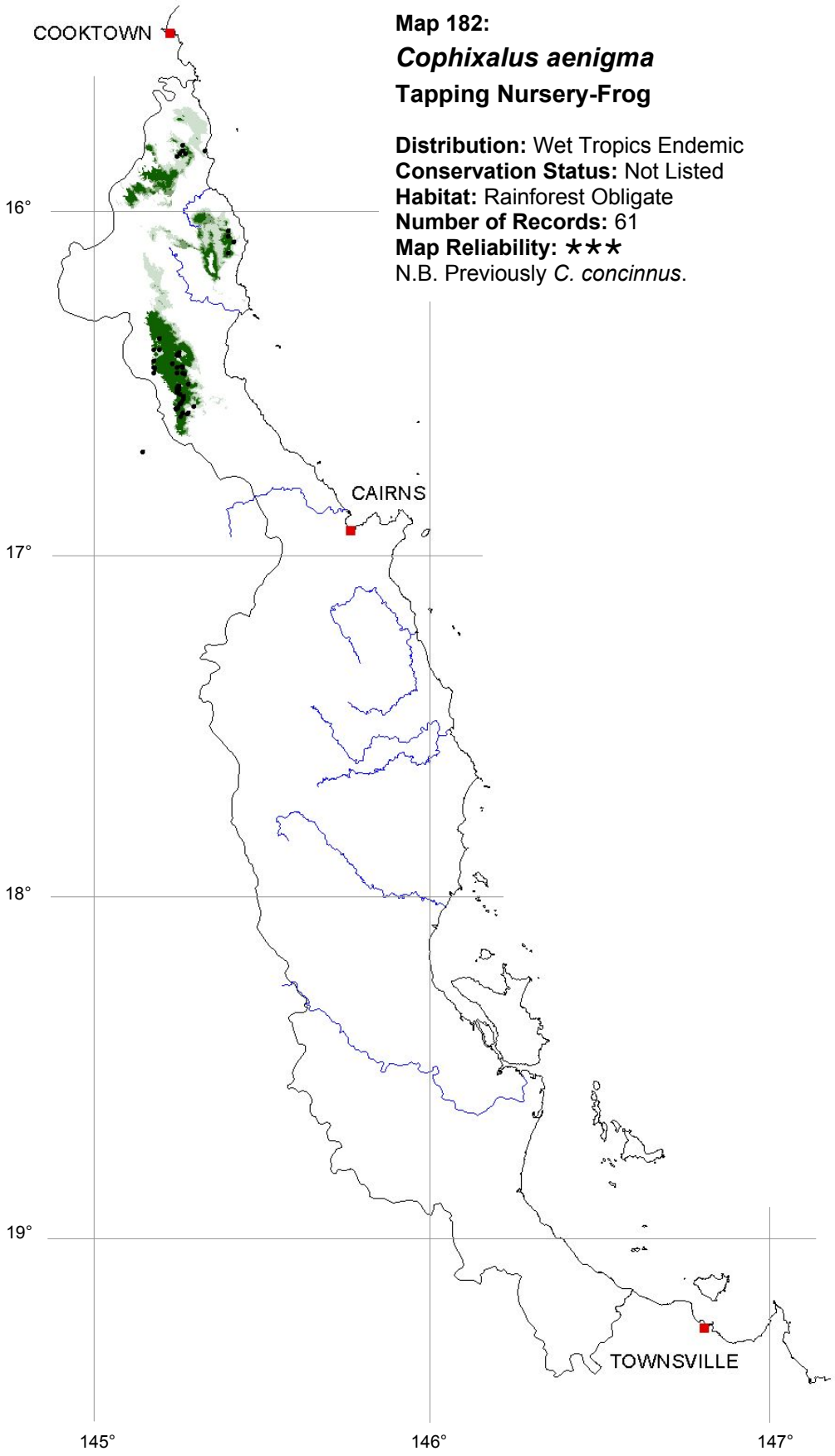


Map 181:

Austrochaperina robusta

Pealing Chirper

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 200
Map Reliability: ★★★

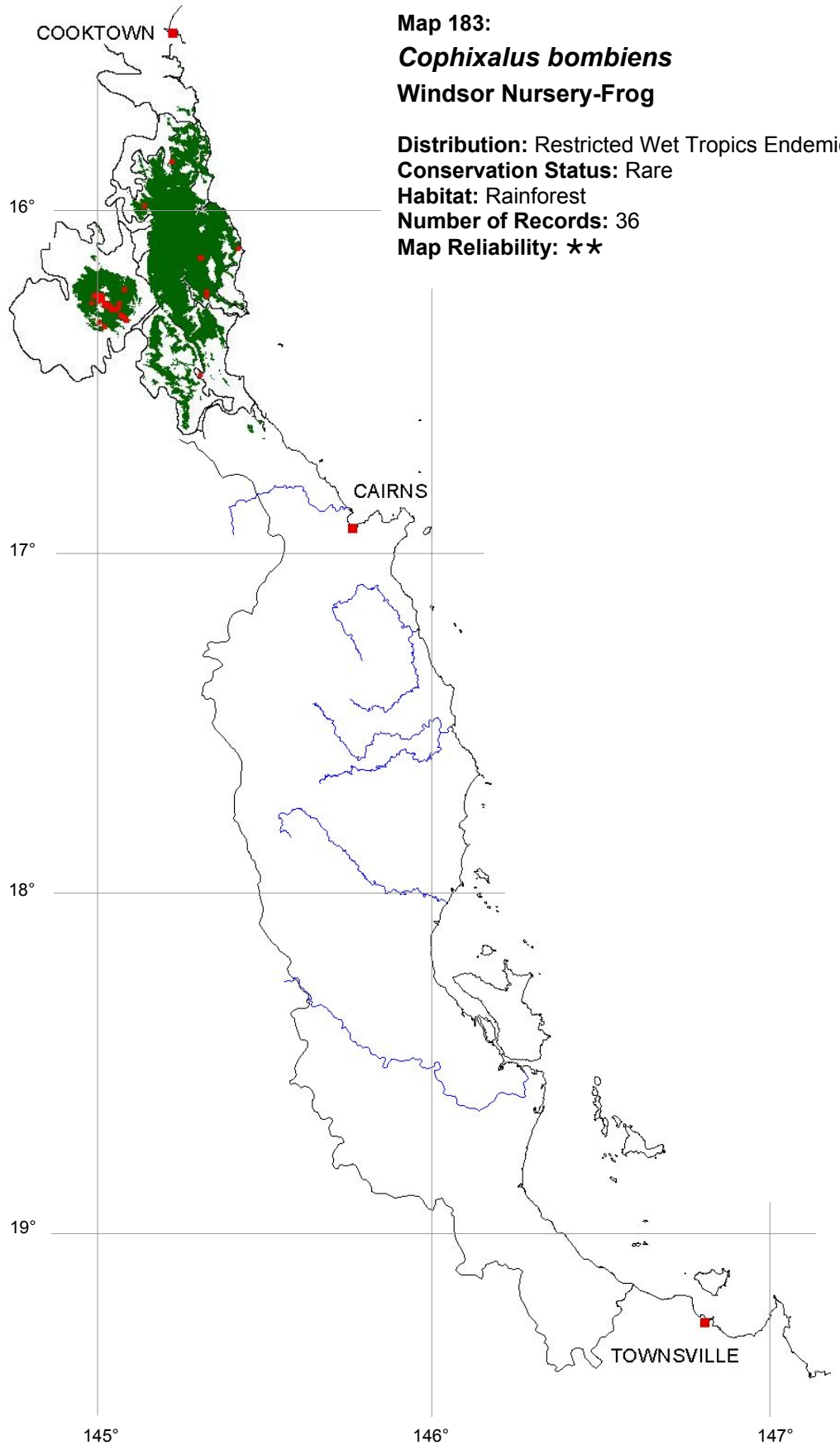


Map 182:

Cophixalus aenigma

Tapping Nursery-Frog

Distribution: Wet Tropics Endemic
Conservation Status: Not Listed
Habitat: Rainforest Obligate
Number of Records: 61
Map Reliability: ★★★
N.B. Previously *C. concinnus*.



Map 183:

Cophixalus bombiens

Windsor Nursery-Frog

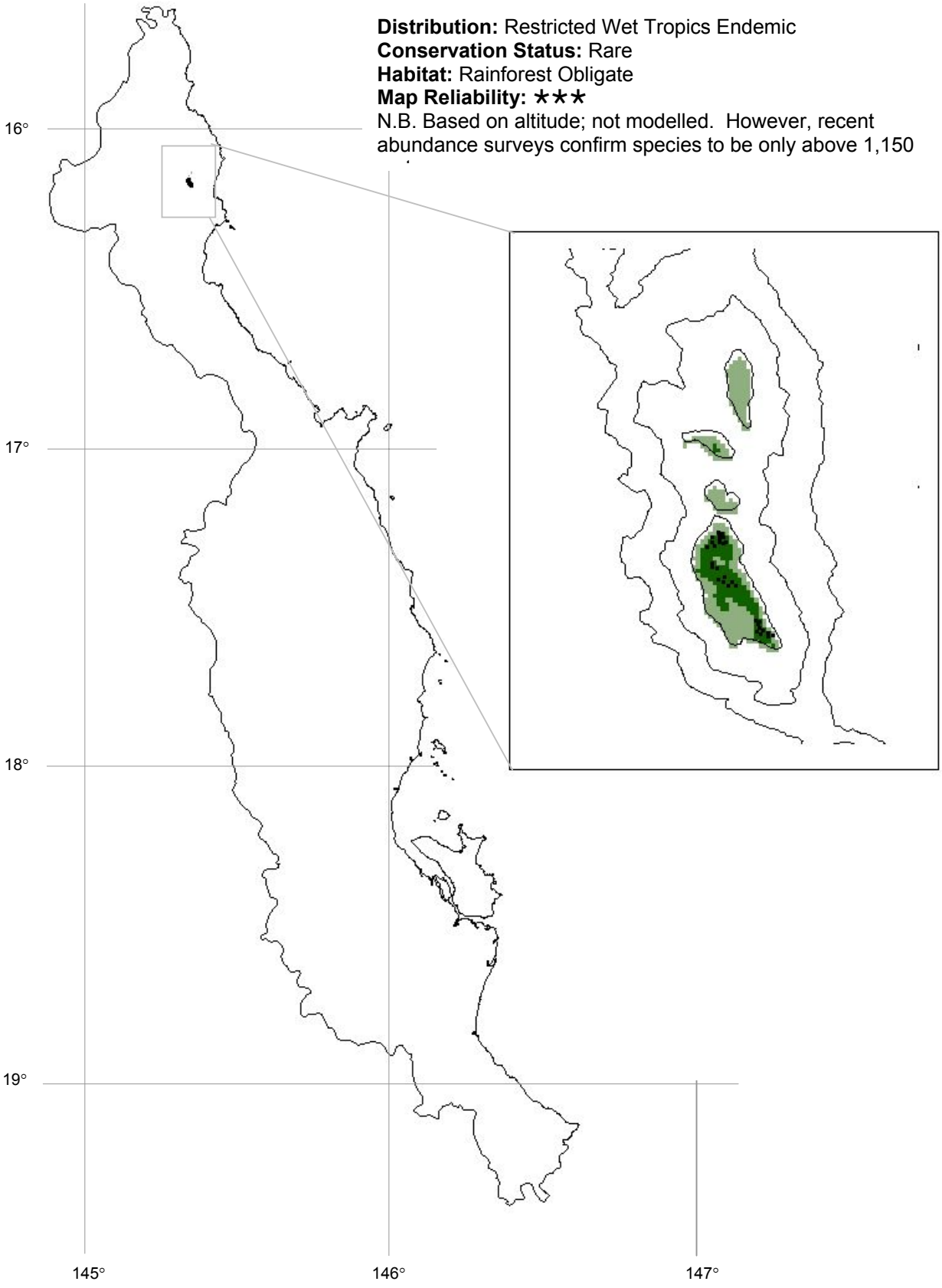
Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 36
Map Reliability: ★★

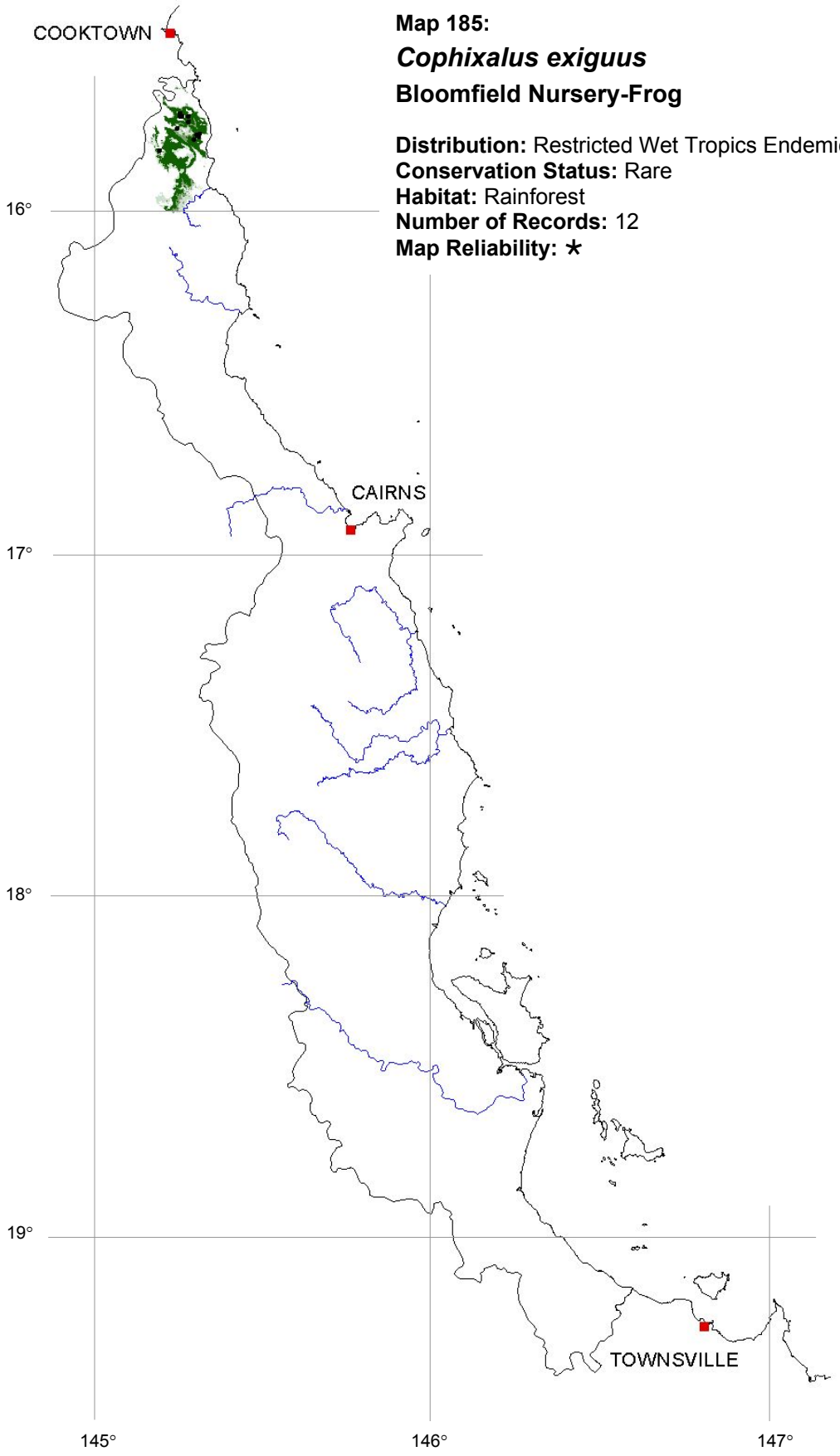
Map 184:

Cophixalus concinnus

Beautiful Nursery-Frog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Map Reliability: ★★★
N.B. Based on altitude; not modelled. However, recent abundance surveys confirm species to be only above 1,150



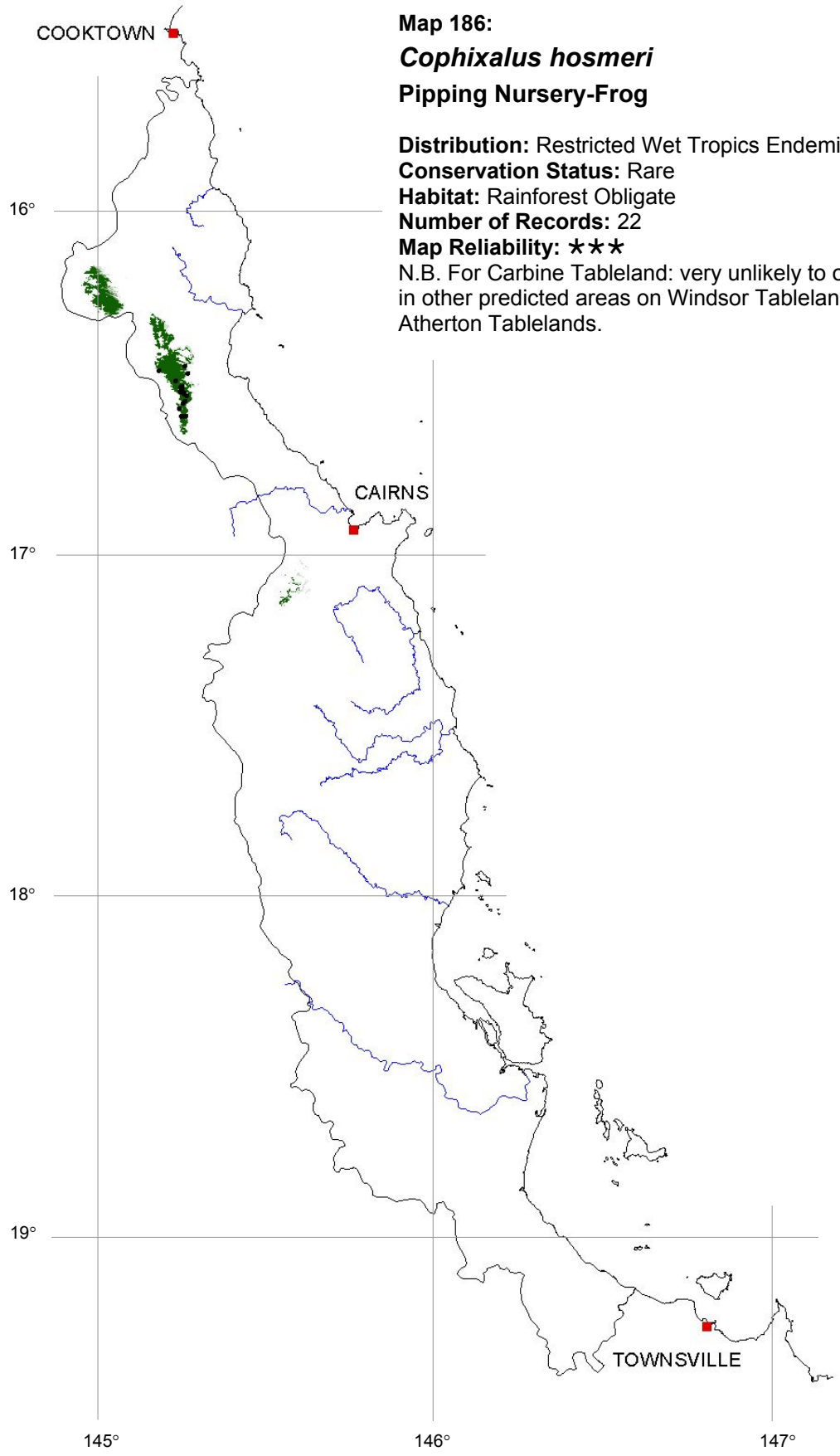


Map 185:

Cophixalus exiguus

Bloomfield Nursery-Frog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest
Number of Records: 12
Map Reliability: *

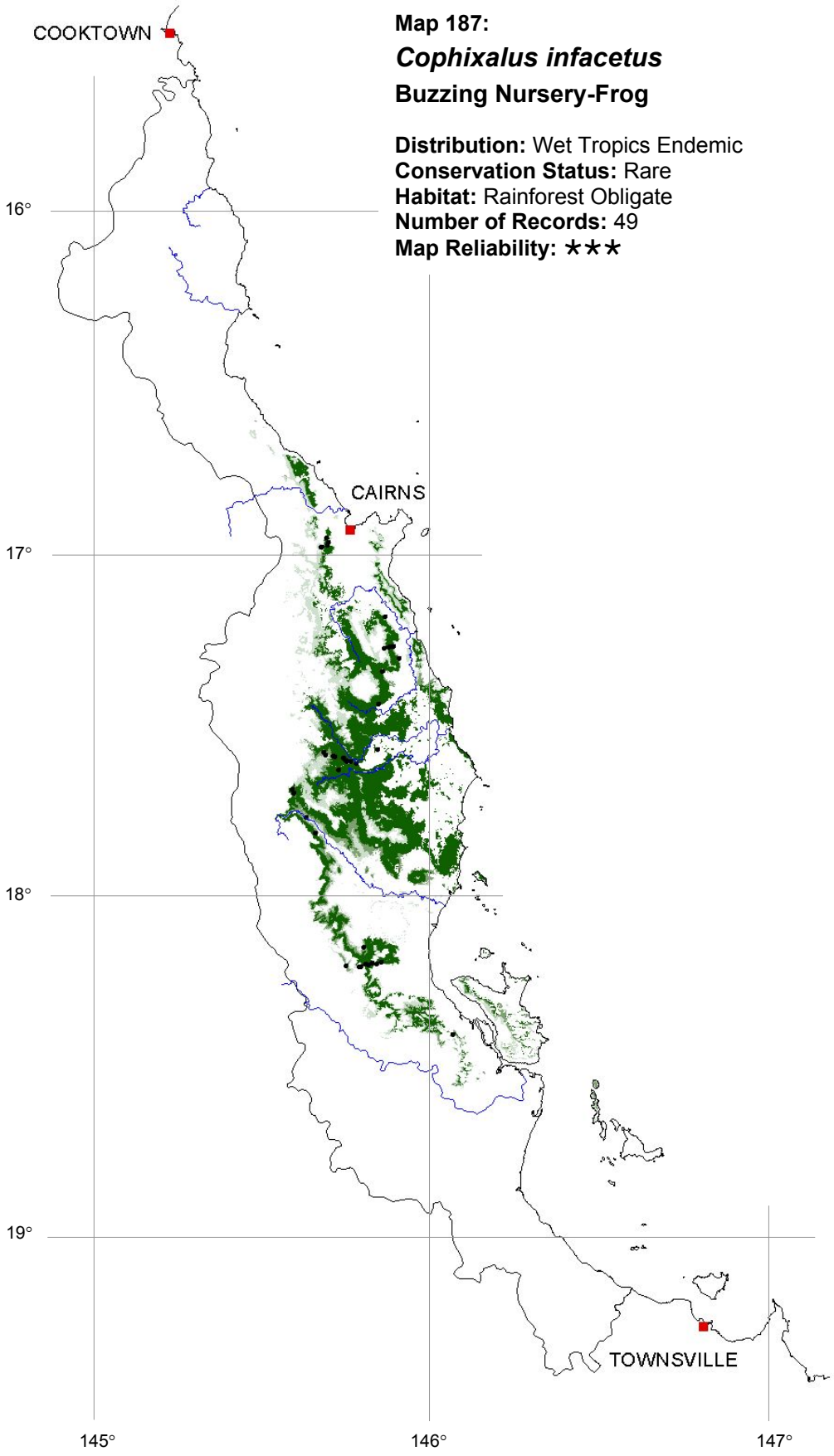


Map 186:

Cophixalus hosmeri

Pipping Nursery-Frog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 22
Map Reliability: ★★★
N.B. For Carbine Tableland: very unlikely to occur in other predicted areas on Windsor Tableland or Atherton Tablelands.

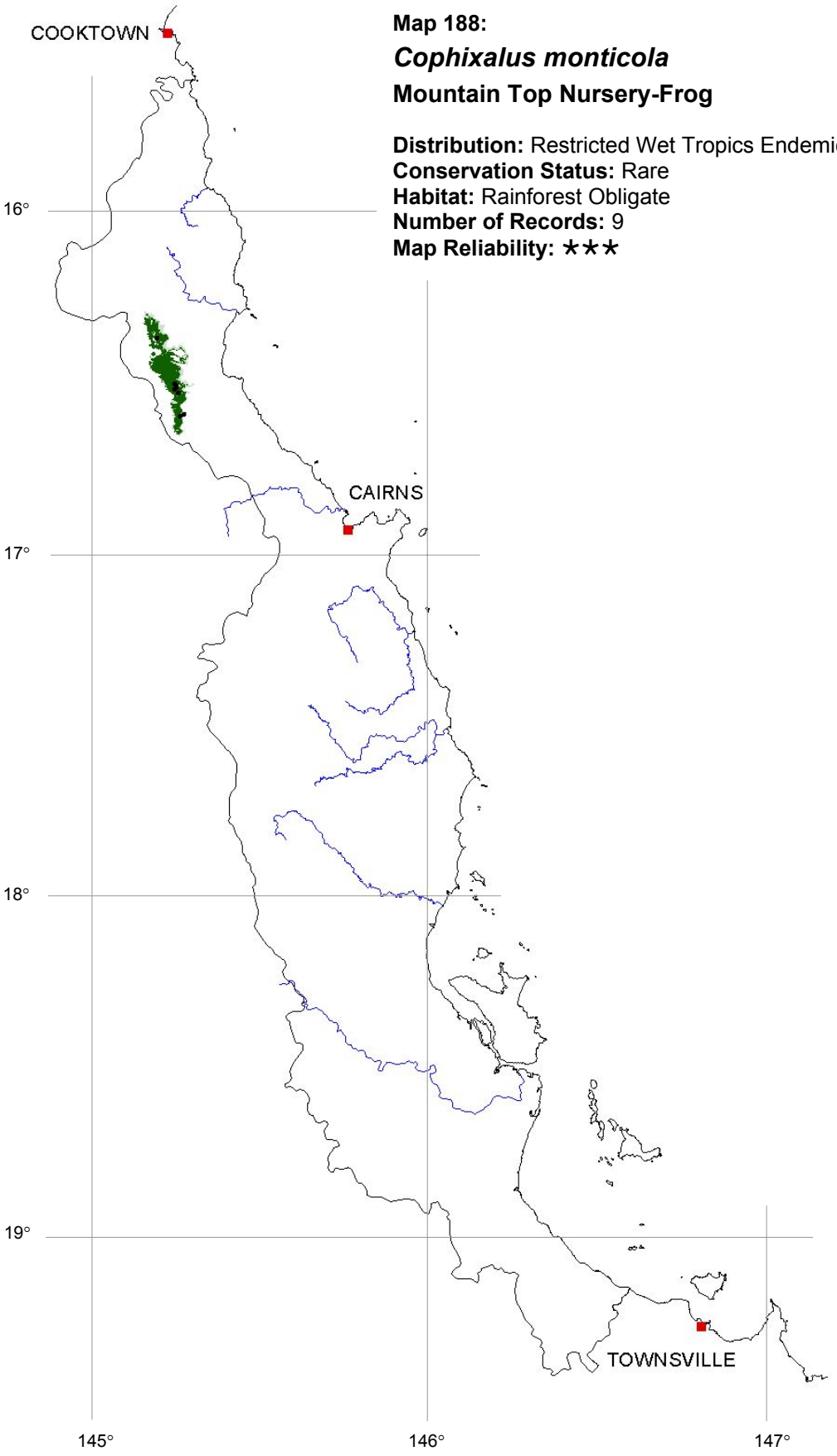


Map 187:

Cophixalus infacetus

Buzzing Nursery-Frog

Distribution: Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 49
Map Reliability: ★★★



Map 188:

Cophixalus monticola

Mountain Top Nursery-Frog

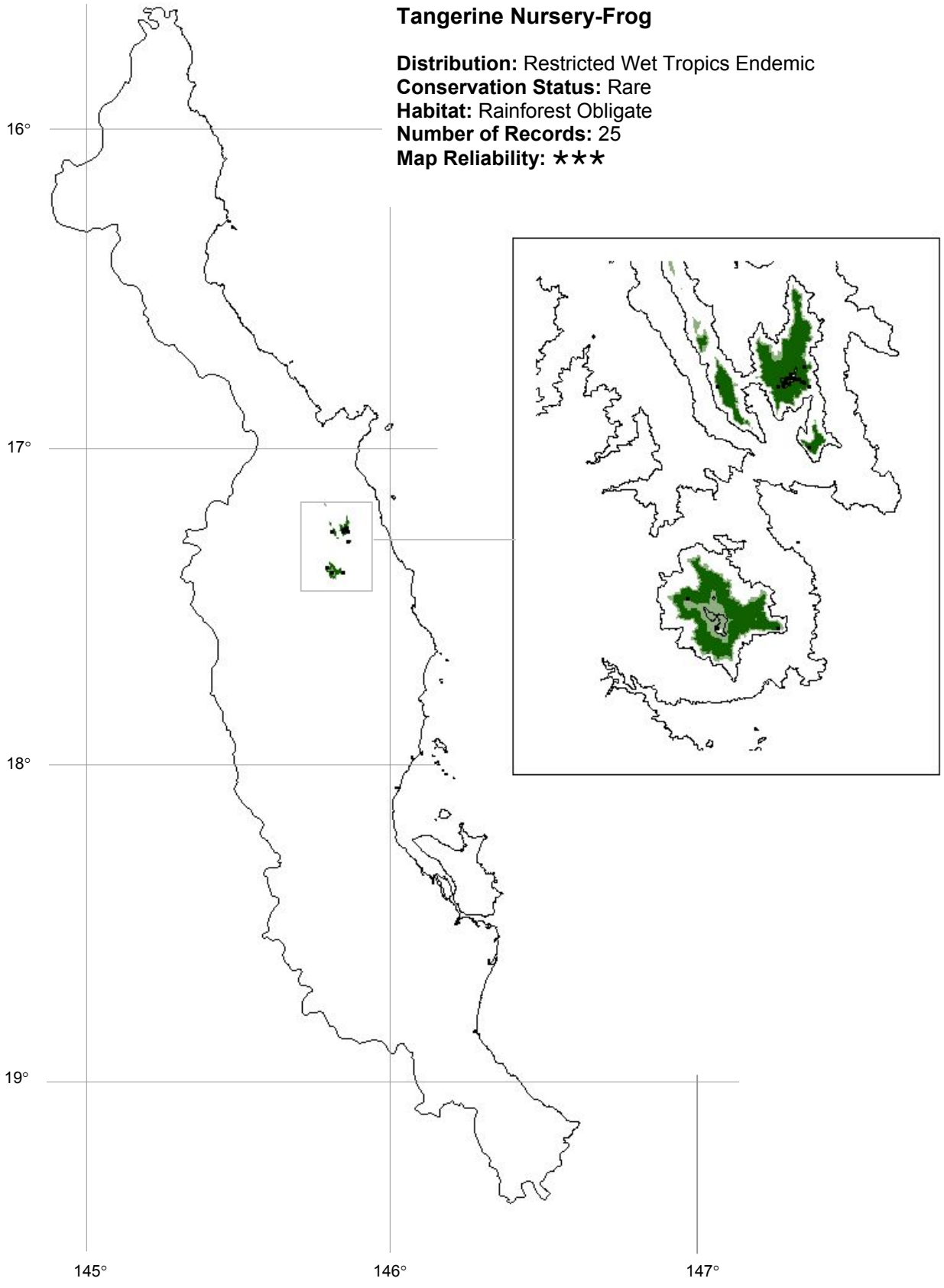
Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 9
Map Reliability: ★★★

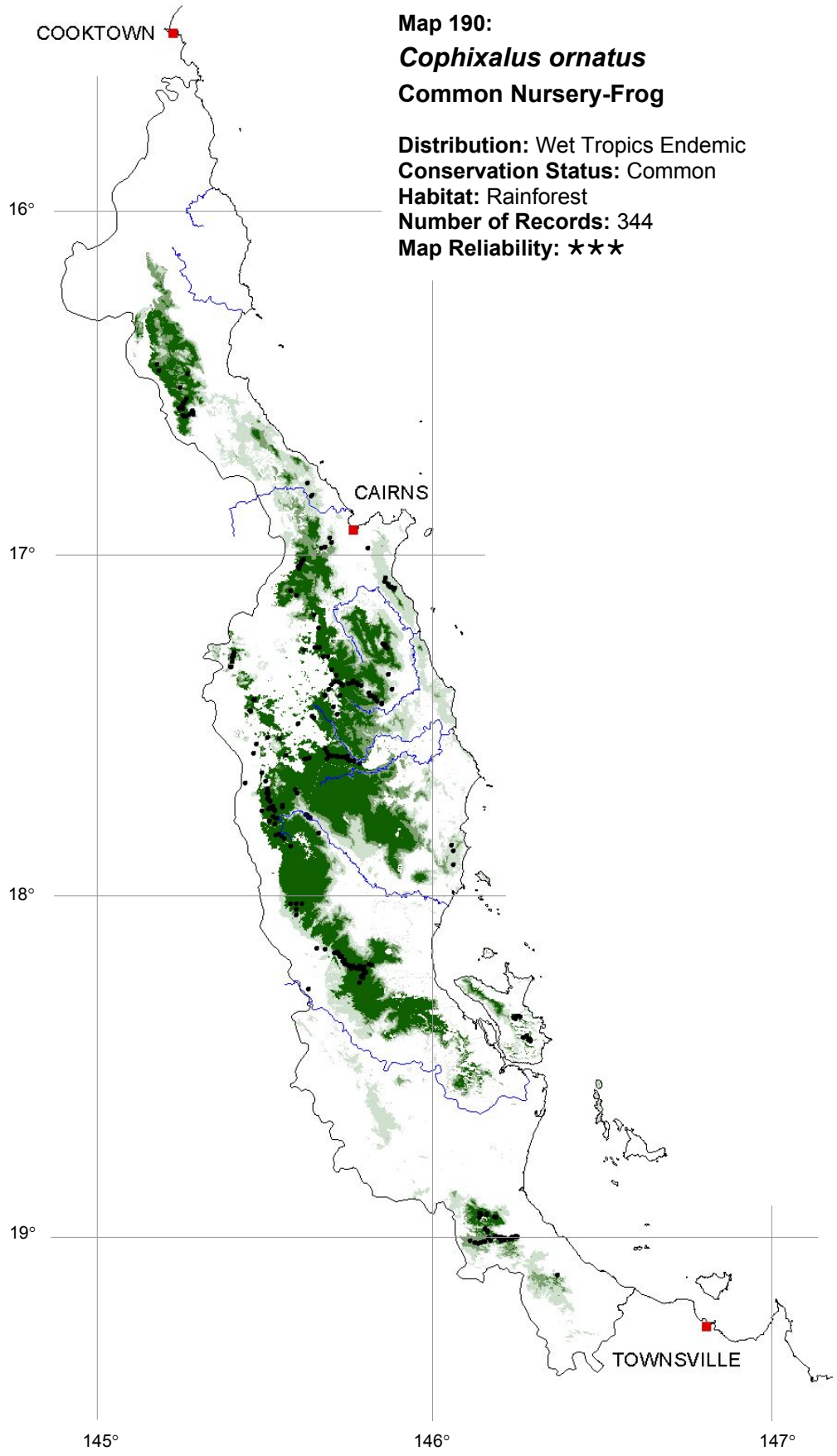
Map 189:

Cophixalus neglectus

Tangerine Nursery-Frog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Rainforest Obligate
Number of Records: 25
Map Reliability: ★★★



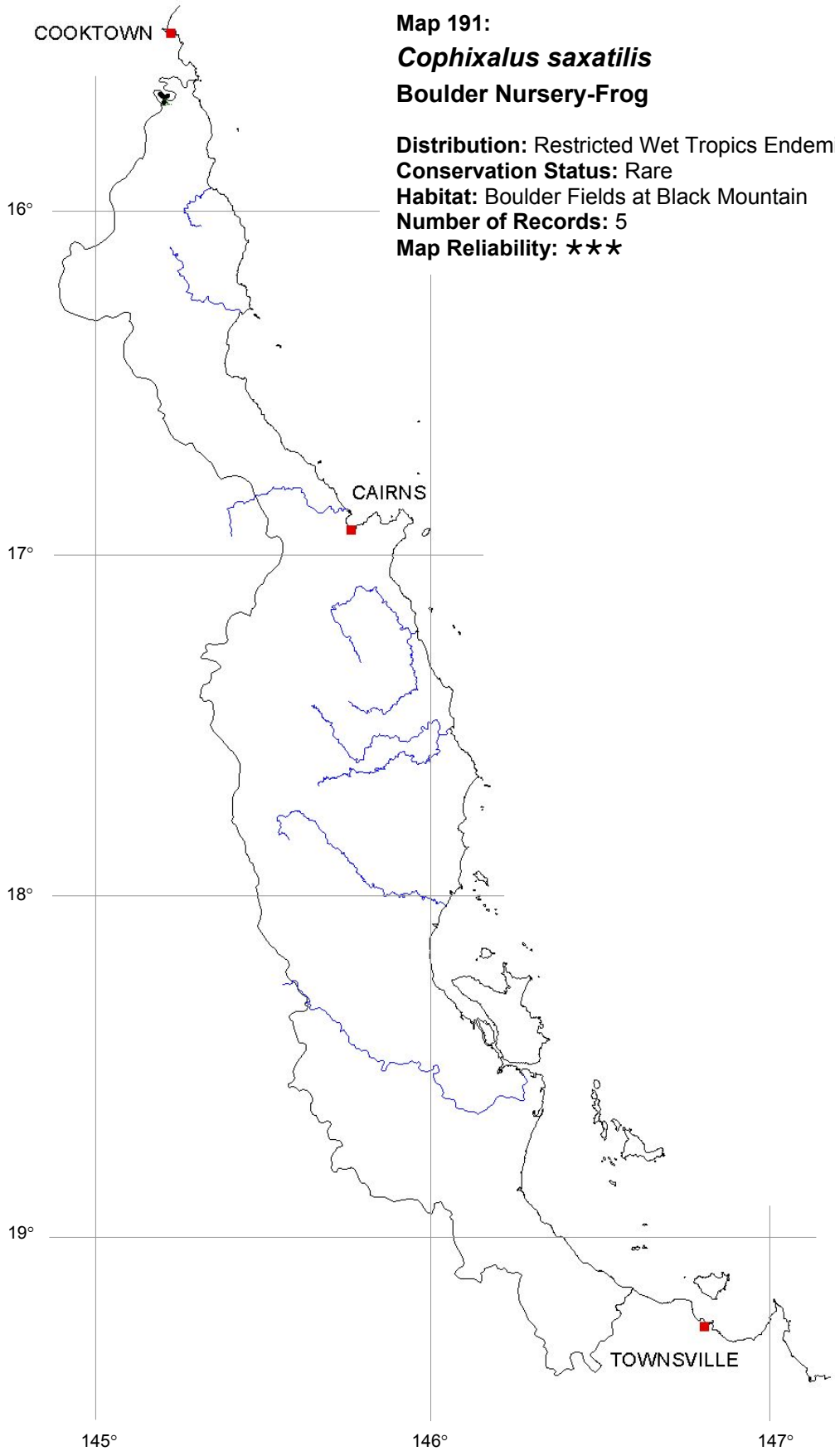


Map 190:

Cophixalus ornatus

Common Nursery-Frog

Distribution: Wet Tropics Endemic
Conservation Status: Common
Habitat: Rainforest
Number of Records: 344
Map Reliability: ★★★

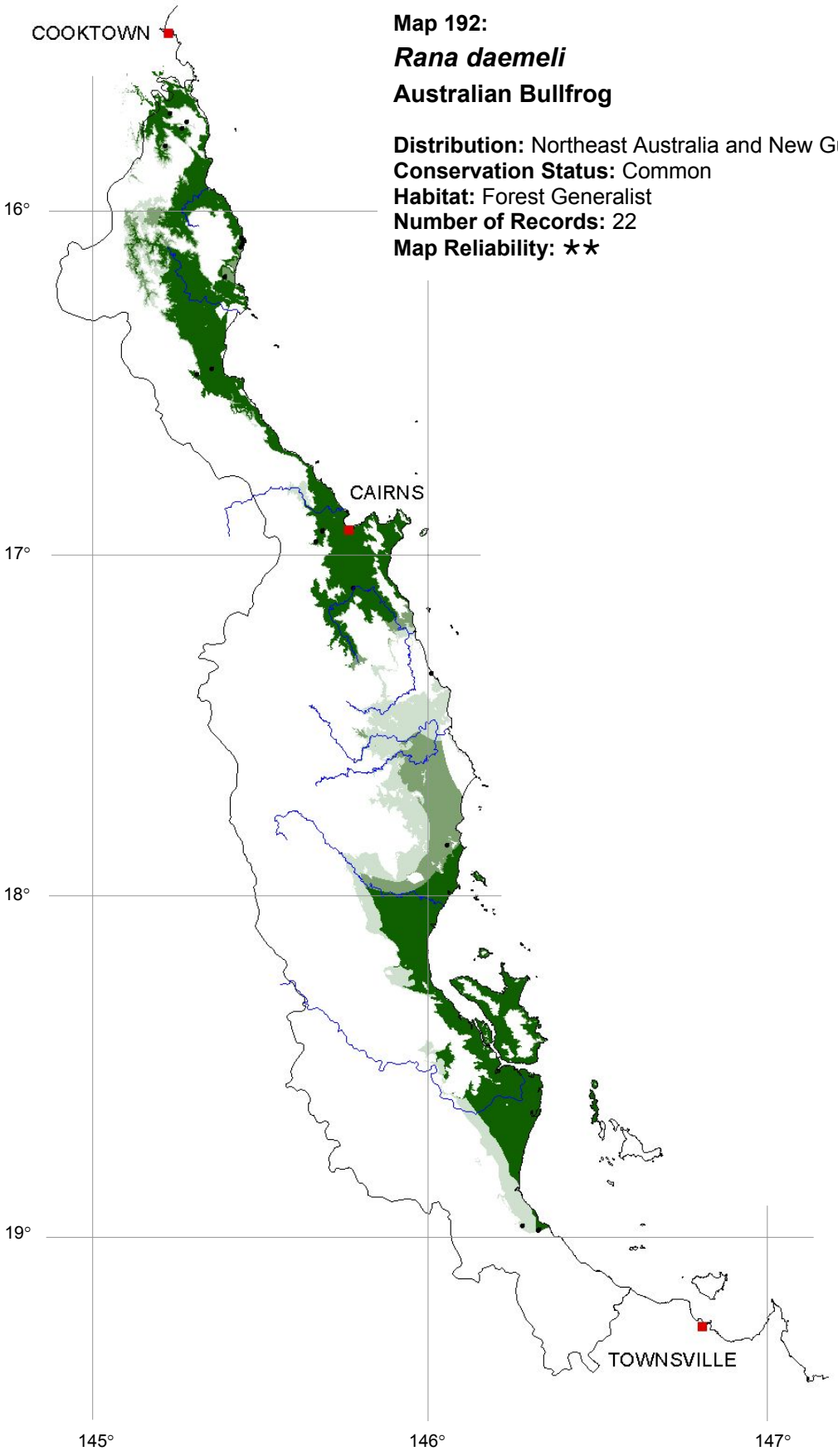


Map 191:

Cophixalus saxatilis

Boulder Nursery-Frog

Distribution: Restricted Wet Tropics Endemic
Conservation Status: Rare
Habitat: Boulder Fields at Black Mountain
Number of Records: 5
Map Reliability: ★★★



Map 192:

Rana daemeli

Australian Bullfrog

Distribution: Northeast Australia and New Guinea
Conservation Status: Common
Habitat: Forest Generalist
Number of Records: 22
Map Reliability: ★★