



Observaciones:	ESTADO FINAL RESOLUCION DEL CONSEJO	FECHA	1. APROBADO 2. PENDIENTE 3. RECHAZADO 4. A FISCALIA
-			

This is only for internal use of FONDAP

EVALUATION REPORT CENTERS FOR ADVANCED RESEARCH

I. PROJECT INFORMATION	
CENTER'S NAME: CASEB	
DIRECTOR: FABIAN JAKSIC	

II. EVALUATION PANEL					
NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE		
REVIEWER 1					

III. PROGRAMS EVALUATION (please fill up as many forms as programs exist within the Center)

PROGRAM'S NAME: INDIVIDUAL BASIS OF BIODIVERSITY

PRINCIPAL INVESTIGATOR: FRANCISCO BOZINOVIC (PROGRAM 1)

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the reported program	XXXX	XXXX		
Quantity of the results reached regarding the objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX			

PROGRAM'S NAME: BIODIVERSITY FUNCTIONING

PRINCIPAL INVESTIGATOR: MAURICIO LIMA (PROGRAM 2)

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the reported program	XXXX	XXXX		
Quantity of reached outcomes related to proposal objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX			

PROGRAM'S NAME: INTEGRATING THE FUNCTIONS OF BIODIVERSITY

PRINCIPAL INVESTIGATOR: JUAN ARMESTO (PROGRAM 3)

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the reported program	XXXX			
Quantity of the results reached regarding the objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX			

PROGRAM'S NAME: CONSERVATION AND BIOCOMPLEXITY

PRINCIPAL INVESTIGATOR: PABLO MARQUET (PROGRAM 4)

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the reported program	XXXX			
Quantity of reached outcomes related to proposal objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX			

PROGRAM'S NAME: MAINTENANCE OF DIVERSITY

PRINCIPAL INVESTIGATOR: SERGIO NAVARRETE (PROGRAM 6)

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the reported program	XXXX			
Quantity of the results reached regarding the objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX			

PROGRAM'S NAME: CHANGES IN BIODIVERSITY

PRINCIPAL INVESTIGATOR: JUAN CORREA (PROGRAM 7)

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal
Degree of adoption of suggestions from the last report *	XXXX	Regulai	Dencient	use
Accomplishment of objectives and goals of the reported program	XXXX	XXXX		
Quantity of reached outcomes related to proposal objectives and goals	XXXX	XXXX		
Quality of reached outcomes related to proposal objectives and goals	XXXX	XXXX		
Degree of integration with other ongoing programs of the Center	XXXX			
Diffusion of the results	XXXX	XXXX		

PROGRAM'S NAME: BIOINVASIONS

PRINCIPAL INVESTIGATOR: FABIAN JAKSIC (PROGRAM 8)

ITEM	Total/	Partial/	Insufficient/ Deficient	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last	XXXX	XXXX		
report *				
Accomplishment of objectives and goals of the	XXXX	XXXX		
reported program				
Quantity of reached outcomes related to proposal	XXXX	XXXX		
objectives and goals				
Quality of reached outcomes related to proposal	XXXX	XXXX		
objectives and goals				
Degree of integration with other ongoing programs of	XXXX			
the Center				
Diffusion of the results	XXXX	XXXX	•	

IV. CENTER EVALUATION

ITEM	Total/	Partial/	Insufficient/	Uso
	Good	Regular	Deficient	Interno
Degree of adoption of suggestions from the last report *	XXXX			
Accomplishment of objectives and goals of the Center	XXXX			
Quantity of reached outcomes related to proposal objectives and goals	XXXX			
Quality of reached outcomes related to proposal objectives and goals	XXXX			
Degree of integration between the programs of the Center	XXXX			
Creation and reinforcement of international networks	XXXX			
Outreach	XXXX			
Diffusion of results	XXXX	XXXX		
Establishment and tasks of the Advisory Committee		XXXX		

RECOMMENDA	ATIONS (see following c	oncepts)
XXX		
APPROVE		
19 April 2010 Evaluation Date		Signature reviewer

EVALUATION CONCEPTS ANNUAL REPORT

1. **Approve:** The reviewer recommends to accept the report in its present form since he/she considers objectives and goals fully accomplished and all relevant issues covered by the report.

2. Approval with suggestions or minor observations

- 2.1 *Minor observations*: The reviewer recommends the approval of the report despite the justified incompleteness of some aspects that does not constitute an obstacle for the continuity of the Center activities.
- 2.2 *Suggestions*: The reviewer recommends minor changes in order to improve the future performance of the Center.
- 3. Additional information: The reviewer requires additional documentation or specific explanations to fully evaluate the report.
- 4. **Pending:** The reviewer makes significant observations to the report and conditions its approval to the accomplishment of specific demands.
- 5. **Reject:** The reviewer has strong objections to the contents of the report.

EVALUATION COMMENTS:

General Assessment

By all reasonable criteria, investment in CASEB by FONDAP is cost-effective and transformative with regard to integrated research and education that focuses on biodiversity and the environment. As clearly documented in its Annual Report, CASEB's research, education, and outreach activities have significantly broadened and deepened environmental understanding, while substantively informing management and sustainable use of natural resources. The Center has attained international stature and is arguably among the leading biodiversity research centers in the world and is certainly *the* leader in South America. It is thus unsurprising that the vision, mission, and goals of CASEB address some of the most pressing 21st Century issues to face society across the globe and in Chile.

As outlined in previous reviews, the ultimate metrics of success for a scientific center such as CASEB include: (1) the quantity and quality of scholarship, including its multidisciplinary nature; (2) the extent to which human infrastructure is developed at the post-doctoral and doctoral levels, including the transformation of the culture of scientific collaboration; (3) the degree to which FONDAP resources are leveraged to secure other financial support for Center activities; and (4) the extent to which scientific understanding informs management, policy, or public understanding. In all of these areas, the overall accomplishments of CASEB are outstanding and reflect the dynamic capacity of the Center to leverage FONDAP resources to excellent effect.

The overall successes of the Center can be illustrated by a number of impressive accomplishments during 2009, including the following:

- CASEB produced 109 ISI publications, ~40% in collaboration with graduate students, 25% in collaboration with post-doctoral fellows, and ~15% in collaboration with undergraduate students. In addition, Center scientists produced 13 chapters in edited books and authored 3 books.
- CASEB faculty members mentored 58 doctoral students, most from Chilean Universities, especially PUC, but also from Argentina, France, New Zealand, Uruguay, and USA.

- CASEB supported 18 of post-doctoral associates, approximately half of whom are females.
- CASEB participated in 34 international collaborative activities, mostly with colleagues in the US (~33%) or France (~40%).
- CASEB organized 5 international congresses, 5
 workshops (2 international), and 2 courses. In
 addition, its members participated in 37
 international congresses, 12 Latin American
 congresses, 37 national congresses, 6 workshops
 (half national and half international), 1 course, and
 7 conferences (6 national and 1 in Brazil).
- CASEB leveraged FONDAP support to very good effect: every peso from FONDAP was matched by two pesos from other federal, international, or private agencies.

These accomplishments reflect effective leadership, management, and collaboration by senior personnel at the Center.

Without a doubt, CASEB continues to play a vital role in the discovery of new knowledge, in the training of the next generation of scientists, and in engaging the public as well as the private sector and government sector, about the importance of biodiversity, ecosystem services, and environmental sustainability. Nonetheless, the total productivity of each program generally seems to be less than it was in 2008, an issue of modest concern about which I wish there had been some commentary in the 2009 Annual Report.

Noteworthy Achievements & Suggestions for the Future

Emphasis on the cross-cutting programs – a great success by CASEB -- has continued to change the culture of collaboration and education in Chile, and has produced scientific understanding in critical areas at the frontiers of disciplines. Inter-program collaboration remains substantive in terms of shared mentoring of graduate students and publication. Moreover, compared to 2008, I am happy to see the proportion of shared doctoral students and joint publications increase for Programs 6 and 7 so that it is almost 0.75 for the former and approximately 0.33 for the latter. As a result, all Programs within CASEB now appear to be well integrated with respect to these important metrics of collaborative accomplishment.

I am also happy to see the that the International Advisory Board was reconfigured and that a "business meeting" was held with one Board member (Valero) and a representative of a second Board member (Richardson) in attendance at CASEB in October. Given the persistent inability to schedule a meeting of the full board at CASEB, perhaps quarterly or semi-annual videoconferences with the entire Board might focus of subsets of issues in a productive way in lieu of a "physical" meeting of the Board. Alternatively, perhaps the size of the Board could be enlarged from 3 to 6 so that at least 3 or 4 board members could be in physical attendance at annual meetings. The synergisms that arise from such ongoing person-to-person interactions can be substantial, especially in providing strategic direction and critical feedback.

CASEB investigators should be applauded for attaining a much greater involvement of graduate students and post-doctoral fellows in the enterprise of publication in 2009 compared to the situation in 2008. In 2008, 15 post-doctoral fellows were involved in the publication of 17 journal articles (~1.1 publications per post-doctoral fellow) whereas 18 post-doctoral fellows were involved in the publication of 27 journal articles (1.5 publications per post-doctoral fellow) in 2009. Similarly, 44 doctoral students were involved in the publication of 22 journal articles (0.5 publications per student) in 2008, whereas 41 doctoral students were involved in the publication of 41 journal articles (1.0 publications per student) in 2009. This represents a significant per capita increase in scholarly publication (~40% for graduate students & 100% for post-doctoral fellows) and hence productive mentorship. I hope that these rates increase over the next few years, especially with regard to postdoctoral fellows, who should be publishing 2-3 articles per year, on average, especially after the first 12-18 months in the program.

As suggested in past reviews, the Senior Researchers of the Center should continue to consider ways to enhance the **social science dimensions** of research and education in all extant Programs, as this is an integral component of **environmental sustainability**. I was disappointed that the number of scholarly publications in the areas of policy and ethics did not increase in 2009 (i.e., no ISI publications and only 1 book chapter on these subjects by my estimate) compared to the situation in 2008. Continued enhancement of socioecological research and education is critical for CASEB to be able to provide guidance for sustainable development in Chile and the world. I would give high priority to the allocation of new positions to this area should FONDAP provide additional resources or supplements in the future. At the same time, I look forward to seeing the forthcoming special edition of *Revista Chilena de Historial Natural*, in which CASEB contributes significantly to the reported socioecological research.

Comparative Analysis of Programs

The overall assessment of CASEB is that the Center continues to be **excellent**. My evaluations of the seven current programs (1, 2, 3, 4, 6, 7 and 8) represent an attempt to distinguish among them based on qualitative and quantitative metrics, so as to assess the extent to which they individually contribute to the overall accomplishments of the Center. Assessment of Program 8, the newly constituted entity in 2008, remains a task for the future, so I will only evaluate Programs 1, 2, 3, 4, 6 and 7 in a comparative sense. Importantly, Inter-program comparisons are a difficult, as the distribution of resources and staffing is not the same for all programs. Consequently, that return on investment is hard to ascertain with confidence.

To provide an estimate on return on investment, I used faculty hours (sum of PI and Research Associate hours per program) as well as PhD hours (sum of PI, Research Associate, and Post-doctoral Fellow hours per program) as bases for standardizing accomplishments of each Program (e.g., ISI publications and thesis production). Regardless of bases, the overall assessment is generally the same. In terms of research productivity, Programs 1, 2, 3 and 4 are excellent, Programs 6 is very good, and Program 7 is good. In terms of education and mentoring at the doctoral level, Programs 4 is excellent, Programs 3 and 6 are very good, and Programs 1, 2, 7 are good. Differential involvement of the extant programs in outreach is difficult to quantify and assess, but the overall impact of the Center appears to be substantial in this regard.

RECOMMENDATIONS TO THE CENTER DIRECTOR: (only if report is approved)
The depth and breadth of accomplishments by the Center and by the nature and efficacy of its leadership continue to be quite impressive congratulations! I hope that support to CASEB by FONDAP will increase in the future so as to facilitate full scale engagement with social science perspectives on sustainability of natural resources in general and biodiversity in particular. I wish that some explanation for the decrease in productivity in 2009 compared to 2008 was evident in the annual report. Nonetheless, the preponderance of evidence is clear: CASEB is doing a phenomenal job!





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			2. PENDIENTE 3. RECHAZADO 4. A FISCALIA

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EVALUATION REPORT CENTERS FOR ADVANCED RESEARCH

I. PROJECT INFORMATION
CENTER'S NAME
Center for Advanced Studies in Ecology & Biodiversity
DIRECTOR Fabian M. Jaksic

II. EVALUATION PANEL			
NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE
REVIEWER 2			

$III.\ PROGRAMS\ EVALUATION$ (please fill up as many forms as programs exist within the Center)

PROGRAM'S NAME The individual basis of biodiversity: patterns, processes and mechanisms in time and space.

PRINCIPAL INVESTIGATOR

Francisco Bozinovic

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *	X			
Accomplishment of objectives and goals of the reported program	X			
Quantity of the results reached regarding the objectives and goals	X			
Quality of reached outcomes related to proposal objectives and goals	X			
Degree of integration with other ongoing programs of the Center	X			
Diffusion of the results	X			

PROGRAM'S NAME

Biodiversity function and functioning of animal assemblages

in terrestrial and marine ecosystems of Chile: the population and community approach

PRINCIPAL INVESTIGATOR

Mauricio Lima

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last report *	X			
Accomplishment of objectives and goals of the reported program	X			
Quantity of reached outcomes related to proposal objectives and goals	X			
Quality of reached outcomes related to proposal objectives and goals	X			
Degree of integration with other ongoing programs of the Center	X			
Diffusion of the results	X			

^{*} If there had been none, please disregard this question

PROGRAM'S NAME Integrating the functions of biodiversity from genes to ecosystems: experimental and modeling approaches in Chilean semiarid and temperate ecosystems

PRINCIPAL INVESTIGATOR

Juan Armesto

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last report *	X			
Accomplishment of objectives and goals of the reported program	X			
Quantity of reached outcomes related to proposal objectives and goals	X			
Quality of reached outcomes related to proposal objectives and goals	X			
Degree of integration with other ongoing programs of the Center	X			
Diffusion of the results	X			

PROGRAM'S NAME Conservation and biocomplexity

PRINCIPAL INVESTIGATOR Pablo Marquet

ITEM	Total/	Partial/	Insufficient/	Internal
	Good	Regular	Deficient	use
Degree of adoption of suggestions from the last	X			
report *				
Accomplishment of objectives and goals of the	X			
reported program				
Quantity of reached outcomes related to proposal	X			
objectives and goals				
Quality of reached outcomes related to proposal	X			
objectives and goals				
Degree of integration with other ongoing programs of	X			
the Center				
Diffusion of the results	X			

PROGRAM'S NAME

Maintenance of biodiversity, benthic-pelagic coupling, and human dimensions of coastal ecosystems

PRINCIPAL INVESTIGATOR Sergio Navarette **ITEM** Total/ Partial/ Insufficient/ Internal Good Regular **Deficient** use Degree of adoption of suggestions from the last X report * Accomplishment of objectives and goals of the X reported program Quantity of reached outcomes related to proposal X objectives and goals X Quality of reached outcomes related to proposal objectives and goals Degree of integration with other ongoing programs of X the Center **Diffusion of the results** X

PROGRAM'S NAME

Changes in biodiversity, structure and function of coastal marine communities associated with anthropogenic disruptions

PRINCIPAL INVESTIGATOR

Juan Correa

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *	X	J		
Accomplishment of objectives and goals of the reported program	X			
Quantity of reached outcomes related to proposal objectives and goals	X			
Quality of reached outcomes related to proposal objectives and goals	X			
Degree of integration with other ongoing programs of the Center	X			
Diffusion of the results	X			

IV. CENTER EVALUATION

ITEM	Total/	Partial/	Insufficient/	Uso
	Good	Regular	Deficient	Interno
Degree of adoption of suggestions from the last	X			
report *				
Accomplishment of objectives and goals of the Center	X			
Quantity of reached outcomes related to proposal	X			
objectives and goals				
Quality of reached outcomes related to proposal	X			
objectives and goals				

Degree of integration between the programs of the	X		
Center			
Creation and reinforcement of international networks	X		
Outreach	X		
Diffusion of results	X		
Establishment and tasks of the Advisory Committee			

RECOMMENDATIONS (see following concepts)					
X					
APPROVE APPROVAL WITH ADDITIONAL INFO. PENDING REJECT FONDECYT USE SUGGESTIONS					
25 /05/2010					
Evaluation Date Signature reviewer					

EVALUATION CONCEPTS ANNUAL REPORT

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- 4. **Pending:** The reviewer makes significant observations to the report and conditions its approval to the accomplishment of specific demands.
- 5. **Reject:** The reviewer has strong objections to the contents of the report.

EVALUATION COMMENTS:

CASEB, under the direction of Dr. Fabian Jaksik, has continued to excel and expanded high impact research in ecology and biodiversity. The quality of the science and the impact of the publications of CASEB scientists is on par with similar programs at top universities in the U.S. and Europe. The host institution has now met 100% of its commitment to CASEB.

CASEB has made positive adjustments in response to the 2009 review. For example, a new International Science Advisory Board was created and a meeting of this new board was convened. Attendance at the International Science Advisory Board meetings remains a challenge. The director may want to consider setting a fixed annual date for the meeting and making attendance at this meeting a requirement for service on the Board.

The cross-cutting collaborations have continued to expand and this likely is one of the most successful components of the CASEB. Twenty-nine percent of the ISI publications now result from cross-cutting collaboration. When compared with the extent of cross-cutting collaboration when CASEB was initially created, the changes in this regard have been especially notable, particularly the increasing number of students and postdocs that are now engaged in cross-cutting research.

The role of graduate students and postdocs in CASEB research and in peer reviewed publications has continued to expand, which is exciting. I recommend that the center continue to encourage this expansion and provide adequate time and resources for postdocs to be as productive as possible. For example, at the US National Center for Ecological Analysis and Synthesis (NCEAS), where postdocs have complete independence to design their own research programs, postdoctoral associates are the most productive scientists at the Center. Although postdocs represent only about 2% of the scientists involved in NCEAS (~750 scientists per year) they produce most of the papers, with 69% of the publications having postdocs as first authors.

CASEB also has made significant efforts to engage undergraduate students in both publications and scientific congresses. This provides a critical role in training the the next generation of scientists in Chile. I encourage CASEB to continue to provide experiences for undergraduates in research.

CASEB has made significant progress with its strategy for internationalization. Many graduate students now come from outside Chile and the number of postdocs from other Latin American countries has increased substantially. This has contributed to the stature of CASEB as a leading institution in Latin America. The number of female postdocs also has increased substantially.

With regard to outreach, there are many activities, in a diversity of areas. In particular, the activities at Fundación Senda Darwin are productive and important.

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ADDITIONAL INFORMATION REQUIRED FOR THE FULL EVALUATION
OF THE ANNUAL REPORT:
If you require additional information or leave the evaluation pending, please indicate the documentation or explanations required to complete the evaluation. In case there are additional demands that the Center's director has to accomplish, these have to be explained so the director may take the necessary measures.
If you entirely reject the contents of the report (or significant portions of it) please indicate here the demands that should be posted to the Center' director.

RECOMMENDATIONS TO THE CENTER DIRECTOR: (only if report is approved)
The number of female postdocs at CASEB has increased substantially, which is important. I encourage the director to help ensure that senior scientists at CASEB provide adequate mentorship to these women as they seek permanent academic positions, since there are few women in senior ecology positions in Chile to serve as role models.
Although CASEB has undertaken many outreach activities, without measureable objectives for CASEB outreach programs, it is difficult to judge what the individual activities add up to. This was mentioned by the reviewers last year, and the response from CASEB was that this should be the responsibility of CONICYT. While CONICYT may or may not want to establish metrics, I encourage the director and senior scientists to be proactive in this regard.