



# INCORPORATING BIODIVERSITY INTO INVESTMENT STRATEGIES

When is the last time you saw the familiar bobbing of the tiny lights of fireflies as they flew across your yard? Can you remember? It has likely been some time since you've seen these luminescent creatures in any numbers. Since 1990, the planet has lost roughly a quarter of its global insect population, including fireflies. In a discouraging corollary, the world has also lost 30% of its bird population since 1970. Today, 20% of the earth's mammals are considered endangered. In fact, the earth is in the midst of the sixth largest extinction event in history and its impacts will be transformative on all stakeholders. A combination of many market influences and environmental factors, from deforestation and poaching to climate change and population growth, have left our world's biodiversity hanging in the balance. The good news is that we can do something about it. The Economics of Ecosystems and Biodiversity (TEEB) initiative estimates that global sustainable business opportunities from investing in natural resources could be worth between US\$ 2 to 6 trillion by 2050 as reported by www.conservation.org. 1

#### **BIODIVERSITY DEFINED**

Biodiversity is defined as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."  $^2$ 

Biodiversity provides many products for human consumption, including food, pharmaceuticals, textiles, wood, and energy. Biodiversity sustains ecosystems, protects the water and soil, breaks down pollution and waste, and contributes to climate stability through terrestrial and aquatic carbon absorption. Biodiversity, quite simply, ensures the sustainability of life on earth, and all its stakeholders, including the capital markets and investors who have the opportunity (and perhaps, the responsibility) to change the current trajectory of events in order to build a more sustainable future.

## WHO WE ARE

Karner Blue Capital is an SECregistered, woman majority owned firm that builds and manages investment strategies dedicated to biodiversity, animal welfare and environmental stewardship. KBC was co-founded by two seasoned executives from the socially responsible investing space, Vicki Benjamin and Andrew Niebler.

Through research and corporate benchmarking, Karner Blue Capital is pioneering investment solutions centered around leaders in biodiversity and sustainability.



Vicki Benjamin, President Prior to co-founding KBC, Ms. Benjamin served as a partner at KPMG for over ten years, later joining Calvert Investments as its Chief Financial Officer until KBC's inception in 2018.



Andrew Niebler, Executive VP
Prior to co-founding KBC, Mr.
Niebler served in senior roles
within the legal department at
Calvert Investments, including
General Counsel & SVP. He was
also an international economist
at the Federal Reserve Bank of NY.

#### THE DISAPPEARING ACT: A GROWING UNIVERSE OF VANISHING SPECIES

Unfortunately, humans and human activity are at the heart of this disappearing act. Population growth and the ecological results of human activity including resource depletion, land use change, pollution, invasive species introduction into non-native lands and climate change have all fundamentally altered the earth and its ecosystems.

### **BIODIVERSITY LOSS' IMPACT ON INVESTORS**

Biodiversity loss exposes many corporate entities to risks that can affect financial performance. Companies in industries dependent on plant and animal life for their financial viability, for instance agriculture, paper and forest, textiles and apparel, tourism, and pharmaceuticals, are particularly susceptible to the challenges posed by the depletion of operationally dependent resources. Other industries, although not directly reliant on ecological resources, are subject to different considerations related to their impacts on the ecosystems within which they operate. Industries such as metals and mining, waste and wastewater management and energy, have direct and material effects on their surroundings. These effects, can often represent environmental, social and governmental risks that may have unintended operational and financial implications. Opportunities abound, however, for those companies (and their investors) who are able to innovate and adapt to meet the challenges of this rapidly changing ecological environment. Commonly known examples include Tesla, Beyond Meat and First Solar. Unfortunately, due to a lack of knowledge, transparency, and reporting by companies, company risk profiles relative to biodiversity loss remain relatively opaque to investors. This lack of





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transparency and the inability to measure dependencies and impacts effectively and efficiently has hindered the necessary incorporation of biodiversity risks and opportunities into stock price valuation models. Importantly, traditional ESG data sets have not been immune, generally failing to incorporate these critical elements into security analysis.

Until now.

#### THE KARNER BLUE CAPITAL PROPRIETARY RESEARCH METHODOLOGY

Karner Blue Capital biodiversity research analysts benchmark companies operating in specific industries considered to have material dependencies and/or impacts on biodiversity based on KBC's proprietary industry-specific frameworks. Only companies that have met an overall ESG threshold are considered. The KBC frameworks, or "models", are comprised of key performance indicators that represent significant environmental, social and governmental risks specific to each industry. These risks are wideranging and those attributed to "E" include resource dependency, pollution, and invasive species mitigation. Risks specific to "S" include threats to human health, including pandemics, social license to operate, changing societal and consumer preferences, and changing demographics. Risks specific to "G" include legislative and tax regime changes, political lobbying, and anti-corruption measures. KBC also evaluates industry and company-specific innovations and opportunities, focusing on those companies developing technologies to mitigate their impacts, inventing alternative products and services that disrupt traditional status quo operating protocols, all in the name of biodiversity, animal welfare and environmental protection.

KARNER BLUE BIODIVERSITY RESEARCH	SAMPLE SCREENED PERFORMANCE INDICATORS
Biodiversity in the Environment	Resource Dependency; Pollution; Invasive Species Mitigation; Conservation
Biodiversity in Social Policy	Threats to Human Health; Changing Demographics; Social Licensure
<b>Biodiversity in Governmental Action</b>	Legislative/ Tax Regime Changes; Political Lobbying; Anti-Corruption Measures
Biodiversity in Innovation	Company Specific Initiatives; Tech Solutions; Alternatives & Disruptive Solutions

## **KBC'S COMMITMENT TO LEADERS**

To move our world in the direction of change for good, only those companies leading their industry in biodiversity performance are further evaluated for financial opportunity by our investment team. We apply Quality at a Reasonable Price fundamental financial analysis to assess companies in the investable universe on growth, profitability, valuation, and balance sheet metrics to create a portfolio of public equities characterized by both robust sustainability practices and financial prospects.

At KBC, our work goes well beyond portfolio management. The biodiversity research team supports KBC's thought leadership by publishing industry white papers and monthly blog posts on current topics, participating in podcasts, and actively engaging on social media. KBC also undertakes targeted advocacy and corporate engagement initiatives designed to positively shape corporate decisions that impact biodiversity, environmental stewardship and animal welfare. By encouraging management teams to adopt more nature-friendly policies, Karner Blue Capital seeks to ensure the sustainability and habitability of the planet for all...including the fireflies.

<sup>&</sup>lt;sup>1</sup> Conservation.org

<sup>&</sup>lt;sup>2</sup> Greenfacts.org





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#### IMPORTANT DISCLOSURES

Karner Blue Capital, LLC ("KBC") is an investment adviser registered with the Securities and Exchange Commission that develops and manages ESG investment strategies with the intention of generating long-term total returns. Registration does not imply a certain level of skill or training. KBC only furnishes investment advice following its receipt of a fully-executed investment management agreement and its delivery of the Firm Brochure (Part 2A to Form ADV) and, if applicable, Form CRS (Part 3 to Form ADV) to the client. The receipt of this document by any consumer and/or prospective client does not constitute a solicitation to effect, or attempt to effect, transactions in securities or the rendering of personalized investment advice for compensation. The opinions expressed in this document (a) do not consider the particular investment objectives, financial situations, or needs of any investor, (b) are made as of January 12, 2021, (c) are not intended to forecast future events or guarantee future results, and (d) are subject to change without notice. The information included in this document has been obtained or derived from sources believed by KBC to be reliable, however, no representation or warranty, express or implied, is made as to the information's accuracy or completeness. An investor should obtain current information and perform due diligence before making any investment. The value of investments held in any account managed by KBC are subject to market fluctuations caused by, and the value of an account may therefore increase or decrease in response to, economic, financial, political and social events (whether real, expected or perceived) that affect the U.S. and global markets in general or a particular country, industry or company. Investing involves risk, including loss of principal, and there is no assurance that any KBC investment strategy will achieve its investment objective. An investment strategy that invests primarily in the equity securities and ADRs of companies that KBC believes, based on its proprietary research, are industry leaders with respect to biodiversity preservation, environmental management, and animal welfare practices may, under certain market conditions, underperform other investment strategies. KBC holds positions in Tesla, Inc., Beyond Meat, Inc. and First Solar, Inc. on behalf of certain advisory clients. These securities do not represent all of the securities purchased, sold or recommended by KBC for its advisory clients, and no assumption should be made that investments in the identified companies were or will be profitable. KBC and some of its partners and employees may hold securities issued by the identified companies in corporate and/or personal accounts. For more information, please visit us online at www.karnerbluecapital.com.